PROGRESS REPORT

OF

FOREST ADMINISTRATION

IN

COORG,

FOR

1890—91.

By J. McKEE, Esq.,

Deputy Conservator of Forests.

WITH A REVIEW BY THE CHIEF COMMISSIONER

AND

ORDERS BY THE GOVERNMENT OF INDIA.

X/103

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No. 1139-F., dated Simla, the 16th October 1891.

From—Sir E. C. Buck, Kt., Secretary to the Government of India, Revenue and Agricultural Department.

To—The Chief Commissioner of Coorg.

I am directed to acknowledge the receipt of your letter No. 1355—108, dated the 20th August last, submitting the Annual Report on Forest Administration in Coorg for the year 1890—91, together with the Commissioner's remarks and your review thereof.

2. Regarding the extension and constitution of State forest property in Coorg, the Government of India have noticed with satisfaction that the area of Reserved Forests has been augmented by 6·74 square miles during the year under review, and that the first steps have been taken towards a forest settlement of the Ghât Forests, comprising 303·84 square miles, though it is a matter for regret that the officer who was in the first instance selected for the work did not prove efficient. The demarcation of the existing State Reserves seems to have received the necessary attention, and though the boundaries of the Ghât Forests cannot, until the Forest Settlement has been completed, be specifically defined in every instance, considerable progress has been made in their selection. Boundary surveys of about 60 square miles of State Forests were executed at a cost of Rs. 4,203. The survey, however, appears to be limited to the measurement of the outer boundaries and of the main roads and rivers, which will probably necessitate interior surveys being made at some future time. If this is the case, the Government of India desire that you should consider the advisability of a survey being undertaken within the next two or three years, in view of the probability that trained Coorg surveyors may be available as soon as the cadastral village-maps have been completed by the Revenue Department.

3. A beginning has been made towards the introduction of systematic management by the compilation of a Working-Plan for the North Dubari Forest, and it is observed that Plans for the South Dubari, Devamachi and Mawukal Forests are under preparation. The Inspector General of Forests has informed the Government of India that the Working-Plan for the North Dubari Forest, which has been placed before him for scrutiny, requires considerable alterations, as it contains two Working Circles superimposed on the same area, and also because it is based on the outturn of material even with reference to the proposed thinnings. It is inexpedient to discuss in this place the technical arguments which may be brought forward in support of the one theory or the other, but it would be preferable if, in future, the bases of proposed Working-Plans were more fully discussed with the Inspector General of Forests, as directed in this Department's Circular No. 9-F., dated 14th May 1889, before they are submitted in a complete form for scrutiny and approval.

4. No progress has been made, during the year, in the opening out of the forests by new roads; but it is observed that the importance of improving the means of communication and of connecting the forests with the markets for forest-produce by serviceable cart-roads is appreciated and receiving your attention.

5. It is somewhat disappointing that fire-protection was not so successful as in the previous year, which, however, was exceptional in its results. No doubt the comparative failure was mainly due to the unusually unfavourable and protracted dry season, but the fact cannot be overlooked that there was some wilful firing of the forests. In consideration of this fact, His Excellency in Council approves of your suggestion that, whilst every effort should be made to bring the people into sympathy with the aims of forest conservancy by removing as far as possible all reasonable grounds of discontent, forests, in which the occurrence of incendiarism is suspected with good reason, should be closed entirely against all grazing and other privileges. The Government of India observe with satisfaction that you fully recognize the necessity for care and circumspection in the introduction of the Arms Act; it may be impolitic to leave the residents of jungle villages in possession of a practically unlimited number of fire-arms, but it is equally inadvisable to deprive them of the means of defence against the depredations of pigs and elephants, and of other animals injurious to cultivation or dangerous to life.

Only six cases of breaches of the forest law, involving eight persons, were brought into Court, or only one case for every fifty square miles of forests. Forest offences not connected with incendiarism are therefore, judging from the returns submitted in Form No. 50, no hindrance to a successful management of the State property.

6. His Excellency in Council is glad to learn that steps have been taken to regulate the grazing in the North Coorg reserves, and approves of the proposed closure of 28 per cent, of the forests. It is stated, in the Deputy Conservator's Report, that in the south of Coorg the demand for forest grazing is limited and mostly confined to the edges of the forests and to swamp-lands within, and that consequently no special arrangements are necessary at present. With reference to this remark, I am to say that it would seem advisable to take advantage of the existing conditions, and to use the opportunity to forestall any changes in respect of a growing demand by the introduction of judicious grazing regulations which would now be accepted without demur.

7. The Report under review affords additional evidence that natural reproduction is, to a great extent, dependent on the degree of protection accorded to the forests, and as long as fires are not entirely excluded and cattle-grazing is not sufficiently regulated, the phenomena of small plants on old roots must remain common occurrences. It is observed that considerable attention has been paid to clearing the forests of climbers and to weeding, but that the girdling of inferior species has been greatly curtailed, presumably with the view of obtaining in the first instance a more complete canopy, and in accordance with the proposals made in this respect by Mr. Hill.

The season was unfavourable, and but little progress has been recorded as regards the extention of cultural operations; but His Excellency in Council is pleased to see it stated that the growth of the plantations visited by you, especially as regards sandal-wood, compare favourably with those in Mysore. It is hoped that the continued operations of the Mysore Khedda will thin out the herds of elephants, which at present are a serious impediment to the improvement of the most valuable forests.

8. The following table exhibits the out-turn of the forests during the year under review as compared with the previous year:—

Agency.	Timber	Fuel.	Bamboos.	Minor produce.
Reserved Forests.	C. ft.	C. ft.	No.	Rs.
By Government Agency	6,331	...	11,880	244
„ Purchasers	74,464	54,050	4,70,063	1,172
„ Right-holders	...	...	...	2,411
Free Grants	...	...	...	...
Total	80,795	54,050	4,81,943	3,827
Protected Forests				
By Government Agency	5,783	...	..	...
„ Purchasers	93,196	79,450	59,650	*15,730
„ Right-holders	...	...	. .	...
Free Grants	3,140	...	4,436	...
Total	1,02,119	79,450	64,086	15,730
Grand total in 1890—91	1,82,914	1,33,500	5,46,029	19,557
„ „ 1889—90	1,30,830	1,45,825	2,76,916	*13,898
Increase or decrease in 1890—91	+52,084	—12,325	+2,69,113	+5,659

* Includes a small proportion from Reserved Forests.

Separate orders have been issued in connection with the deficiency in the stock of felled timber. While acknowleding that the discrepancy between the stock in the forests and in the accounts may be due to causes, such as forest fires, beyond the control of the Forest Department, the Government of India consider that the delay which occurred in the institution of a regular inquiry does not reflect credit on the management of Mr. McKee's predecessor.

9. The following statement of financial results compares the figures of the year under review with those of 1889—90 and the average of the last five years :—

Year.	Receipts.	Charges.	Surplus.	Proportion of surplus to gross Revenue.
	Rs.	Rs.	Rs.	Per cent.
1890—91	1,35,561	65,818	69,743	51
1889—90	92,753	72,420	20,333	22
Increase or decrease in 1890—91	+42,808	—6,602	+49,410	+29
Average for five years ending 1889—90 ..	1,08,928	73,006	35,928	33

The surplus was the largest on record, although the gross income fell a little short of that of 1888—89.

It is observed that the comparatively large sum of Rs. 32,619 is outstanding on account of cardamoms, owing to circumstances over which the Department had no control.

10. The Government of India have noticed with pleasure that you are fully satisfied with the services rendered by Mr. McKee, who was in charge of the Coorg Forests throughout the year.

Proceedings of the Chief Commissioner of Coorg,
(Forests),—No. 1341—108-91, dated 18th August 1891.

READ—

Letter No. 206—125, dated the 4th July 1891, from the Commissioner of Coorg submitting, with remarks, the Annual Report of the Coorg Forest Department for 1890—91.

ORDER THEREON No. 1341—108-91, DATED BANGALORE, 18TH AUGUST 1891.

The report of the Deputy Conservator is full and exhibits satisfactory financial results. The insertion in it of data connected with the forest survey which began only in January last is, under recent *orders (received too late for observance this year) unnecessary, and in future reports only data relating to the previous survey year (ending 30th September) should be given.

* Government of India Circular No. 15—F. dated the 6th June 1891 from the Revenue and Agricultural Department.

2. Two unsatisfactory features of the report are (a) the failure of the measures adopted for fire protection and (b) the discrepancy detected during the year between the felled stock as found in the forests and that as shown in the books. As regards (a) a close season will shortly be established which will close the forests altogether during the dry season, and will allow shooting at other seasons of the year, under certain conditions, only to those who take out a five rupee sporting license. The correspondence connected with (b) has been submitted to, and is now under the consideration of, the Government of India.

3. The area of reserves has increased during the year and further reservation is in progress, for which purpose two settlement officers have been appointed, one of whom has already commenced his preliminaries for the settlement of the ghat forests.

4. In addition to the depot about to be opened at Antarsante for Nalkeri timber, another may be established at or near Nanjangode, to which place the S. M. Railway will shortly open out their extension, when the Kabbini river has been rendered passable.

5. The outstanding cardamom rent is receiving attention and it is probable that, owing to past bad crops and low prices (which latter do not seem likely to improve at present) the postponed moiety of the demand for 1889—90 will have to be remitted altogether. On this point, the usual intimation will be submitted in due course.

6. The want of a trained junior assistant, mentioned in paragraph 11 of the report, will soon be supplied, the Government of India having sanctioned an extra Assistant Conservator for Coorg.

7. The Chief Commissioner fully recognizes the valuable services of Mr. McKee, the Deputy Conservator, who, since his appointment in October 1889, has superintended the working of the forest department with ability and energy.

CHAS: W. RAVENSHAW, CAPTAIN,

Secretary to the Chief Commissioner.

To—The Commissioner of Coorg.

" " Deputy Conservator of Forests, Coorg.

" " Government of India and other officers as usual under separate covering letters.

No. 206—125, dated the 4th July 1891.

From—G. F. Meiklejohn, Esq, Commissioner of Coorg.

To—The Secretary to the Chief Commissioner of Coorg, Bangalore.

I have the honor to forward the annual report of forest administration in Coorg for the year 1890—91, which has been submitted by the Deputy Conservator of Forests.

2. The figures in the report and the accompanying statements have been checked as far as practicable in this office, and the discrepancies noticed have been rectified.

3. The financial results for the year as shown in the report are very satisfactory—there being a surplus of Rs. 69,743 against one of only Rs. 20,333 in the year previous. The receipts for 1890—91 were Rs. 1,35,561 and expenditure Rs. 65,818 against Rs. 92,753 receipts and Rs. 72,420 expenditure in 1889—90. The largest increases in receipts were under the heads sandalwood and miscellaneous.

4. The area of reserved forests is now 1,58,351 acres or 4,313 acres more than last year, and preliminary steps have been taken to reserve 1,94,460 acres more of the ghât forest as explained in the report.

5. Owing to the officer appointed as Forest-Settlement officer not proving strong enough for the work, the progress made in settlement work was bad: a new officer has now been appointed, and in this year the settlement work will be completely done.

6. The Deputy Conservator has given a great deal of time and attention to the work of fire protection and is naturally very much disappointed at not being able to show as satisfactory results as those of 1889—90 when there was only 3 per cent of failures to area attempted to be protected. This year the proportion of failures has been no less than 21 per cent. Compared however with that of the years previous to 1889—90 this may be called good, as in 1888—89, for instance, no less than 42 per cent was burned.

7. Mr. McKee puts the comparative failure in fire protection down :—

1st. To the unfavourable season.

2nd. Fires lighted by the ryots in order to obtain fresh grass and for purposes of sport.

3rd. Fires lighted by persons bearing a grudge against the forest department.

8. The first and no doubt the chief cause—as the other two causes were equally in force the previous year when there were so few fires—was the unusually dry season. The rainfall was scanty and the showers late, while the high east winds were unusually strong, but some fires may have been occasioned by the last two causes. As explained by Mr. McKee in paragraph 26, assistance cannot be readily obtained to put out fires once started, not because the people won't help, but because scattered as the farms are in different valleys, they cannot be got together rapidly as they can be when they live in villages as is usual in other parts of India.

9. The Deputy Conservator says that unless "*the forest department receives extraneous assistance either from the revenue department or through some repressive action of government, fire protection will be a mere matter of fortune.*" I need scarcely say that the forest department will receive, and I believe it has hitherto always received, every possible assistance from the revenue and other departments.

10. I myself suggested to Mr. McKee that forests in which incendiarism was suspected with good reason should be closed entirely as a punishment and all grazing even where now allowed prevented. But as mentioned in paragraph

30 of the report, "there are rules as to grazing which press hard on the people "of Coorg and which cause discontent and may perhaps be credited with some "of our forest fires and which may be relaxed with advantage." We should try to have the people with us, certainly not unnecessarily against us in forest preservation, and (I write of course with deference having been only a very few months in Coorg) the most effectual means to prevent fires will be to remove all reasonable grounds of discontent and to make it as much as possible the interest of the people themselves to prevent fire. I shall therefore in concert with Mr. McKee, submit at an early date for approval, modifications of the rules above mentioned and by allowing privileges as to grazing and *shikar* as long as fires are kept out, privileges to be at once withdrawn when fires occur, hope in time to induce the people not to oppose but to assist the forest department.

11. In paragraph 23 it is said that one of the chief causes of fire is, in the opinion of the planters with whom Mr. McKee has consulted, the large number of guns owned not only by Coorgs but by kurubars and other jungle tribes. I confess I would not place too much reliance on the opinion of the planters in this matter—those who know or care anything about it at all, are *shikaries* themselves and naturally anxious to prevent shooting by others as much as possible.

12. Steps are, however, being taken gradually to enforce the Arms Act. To at once, summarily confiscate the guns of all the jungle tribes would be very difficult and scarcely wise, as such a measure would at once turn the men who know the forests best into the worst enemies of the forest department. I propose at first granting licenses freely and gradually reducing the number to known men useful to the forest department. That caution is necessary in applying the Act, is evident from the fact that, only 3 days ago when riding over one or two villages, the lands of which, although the soil appeared unusually good, were out of cultivation, I asked the reason and was told that the fields had been thrown out of cultivation, owing chiefly to the depredations of pigs and also a little from fear of wild elephants and for no other reason. This I found out from the ryots who had no idea that I was an official and were talking to me as a planter and as uninterested in this matter except from curiosity. From what Mr. Haller who has been conducting the survey found, there has evidently of late been a good deal of land given up on account of the damage done by wild beasts.

Note.—The Act, until the recent orders of the Chief Commissioner, was not put in force in Coorg under the authority of Chief Commissioner's Proceedings No. 2171—886, dated 17th March 1883.

13. The next point requiring notice is the large outstanding on account of cardamoms—Rs. 32,619—even though the collection was better than in the previous year. The collection of Rs. 10,227—8—0 of this large outstanding balance has been postponed by order for a year. The cardamom planter has fallen on evil times, prices having, since the *males* were leased, gone down from Rs. 50 to Rs. 20 per maund.

I hope to submit a further report on this subject, into which I have been carefully enquiring, in a day or two.

14. As regards the other important points in the report—the deficiency in the stock in the jungle compared with the stock in the accounts, and the new forest survey, I have already submitted separate reports. With the survey I expect next field season that very rapid progress will be made especialy in the measurement of the cardamom *males*, as it is proposed to survey them from the outside by triangulation and thus the expensive clearing of lines in the forest will be to a great extent avoided.

15. I visited with Mr. McKee some of the teak plantations and most of the fuel and sandalwood plantations in the province. The growth of the latter especially struck me as comparing very favourably with the plantations in Mysore and they will be in some years a source of great profit to government.

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PROGRESS REPORT

OF THE

FOREST ADMINISTRATION IN COORG,

FOR

1890—91.

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CHAPTER I.

AREA.

The area of the reserves received a net increase during the year, of 4,313 acres, making their total area at the close of the year 1,58,351 acres. The alterations, as exhibited in form 49, are as follows:—

Area at the commencement of the year			1,54,038
Additions by the Chief Commissioner's Notification No. 50, dated the 8th December 1890.	Kattipura ...	585	
	Arkomale ...	2,500	
	Keepalli	800	
			3,885
Additions by re-measurement			534
			1,58,457
Deduct by re-measurement			106
Area at the close of year.....			1,58,351

The differences due to re-measurement were owing to the survey of certain blocks in the Nidta, Gadinad, Jainkal and Devammachi reserves, for which heretofore estimated acres had been accepted.

2. Arrangements were also made, by notifying under section 4 of the Forest Act, to publish the intention of the government to reserve the following areas:—

Ghât forests	1,94,460
Merkara fuel plantations	318
Bambukadu Sandal plantation	25
Bikki Hari Sandal *Urudve*	295
Frasерpet Sandal plantation	33
Total.....	1,95,131

Or 305 square miles.

3. The area of the protected forests was reduced by 4,167 acres as follows:—

By transfer to reserves	3,885
By waste land sales	282
Total.....	4,167

At the close of the year these forests were estimated to contain 3,89,694 acres or 609 square miles; but there is reason to believe that when exact details are obtained from the survey department, their area will be found to have been largely over-estimated.

4. No progress was made in the settlement of forest rights, owing to the difficulty experienced in appointing a special officer for the work. And many of the decisions recorded in regard to claims made so far back as 1888—89—90, remain to

be further enquired into, and revised, by order of the Appellate Court, as explained by the Commissioner in his remarks (paragraphs 9—11) passed on the annual forest report for last year. It is hoped, however, that this difficulty has at last been overcome, and that all arrears of work connected with the eastern or deciduous reserves, as well as in regard to the ghât evergreen forests and cardamom *jama malés* will be completed before the close of 1891—92.

Boundaries.

5. A good deal was done under this head, chiefly connected with the demarcation, or marking of the boundaries of the eastern reserves. The details of the work accomplished will be found in Appendix A. A few alterations were made in the outer boundaries of the Yedavnad and Jainkal forests, entailing the addition of six miles to their former length at a cost of about Rs. 60, while 999 pairs of pits and 734 boundary stones were dug and prepared at a cost of Rs. 870. The pits are dug in pairs to indicate the direction of the line, two pits, each 5′×3′×3′, with a boundary stone between them, constituting one mark. The pits are nearly completed round all the reserves, but the stones, although in great part prepared, remained to be erected at the close of the year—a work which has made considerable progress at the time of writing this report. In addition to the above, 301 miles of old line were cleared and maintained at a cost of Rs. 938, or a fraction over Rs. 3 per mile.

6. In the ghât forests, the demarcation of the *jama* cardamom *malés*, referred to in paragraph 8 of last year's report, was continued, 25 miles of new boundary having been cut and marked with 222 marks, at a cost of Rs. 322, or about Rs. 13 per mile.

7. No details can yet be recorded for the ghât forest reserves. They have no demarcated boundaries except on paper, and their description, even as notified, leaves much to be desired. The work of demarcating them is postponed until the revision of the ghat forest line is completed, it being intended to extend their boundaries right up to this ghât line. But this cannot be done until the line has been revised and settled, and the ghât forests have themselves been declared reserves under section 19 of the Act. A large number of objections (over 60) have been lodged against the line as it at present trāvels, and as these objections seem to be based on fair grounds, it is certain that many, and in some cases, very considerable alterations will have to be made in this boundary. The work of revision has been delayed, owing to the non-appointment of a settlement-officer to inquire into the numerous claims and petitions made by interested residents in the neighbourhood; but a good deal of preliminary work has been done by the Deputy Conservator in this matter, since the close of the year under report, that will, it is hop d, make the settlement an easy matter when an officer is available for taking up the work.

CHPTER II.

Surveys and Working Plans.

Surveys.

8. The Government of India having sanctioned a professional boundary survey of the ghât forests, and of those eastern reserved blocks which remained unmapped—as reported on last year—the work was taken in hand by the Deputy Superintendent of revenue survey, who reports the following progress up to the close of the year.

Eastern Reserves.

	Acres.
Bageri block of Nidta reserve	488·60
Bendebetta block of Attur reserve	344·12
Chik Hudugur block of Gadinad reserve	1,236·00
Igur block of Gadinad reserve	155·16
Baktankote block of Anekadu reserve	893·34
Bikki Hari Sandal block of Jainkal reserve	295·40
Total	3,412·62

Plantations.

Kutompole Teak plantation	...	...	...	... 644·63
Herekeri Sandal plantation	...	...	...	... 202·80
Banwara Sandal plantation	...	...	...	... 26·48
Kargodu Sandal plantation	...	...	...	... 53.84
Merkara Fuel plantation	...	...	...	... 237·00
			Total.....	1,164·75

Ghat Forests.

Monnengeri Village forest area			...	...	... 12,582·53
Balagodu	do	do	...	...	... 59·38
Kumbaragadige	do	do	...	..	... 6,163·49
Surlabi	do	do	...	...	... 142·17
Garavale	do	do	...	...	... 1,632·99
Mutlu	do	do	...	...	... 625·09
Galibedu	do	estimated	...	...	... 4,600·00
				Total.....	25,805·65

Jama Cardamom *Males.*

Kolianda *Malé.*
Kattiangundu *Malé.*
Bangiada *Malé.*
} Area not yet computed, but estimated to be about 7,000 acres.

9. The cost of the above as debited in the forest accounts up to March including purchase of instruments, but excluding establishment expenses for that month was Rs 2,438 or Rs. 51·35 per square mile.

10. Mr. Barker, the Deputy Superintendent, only received instructions regarding this forest survey in the middle of January, and the work, especially in connection with the cardamom *malés*, has been of an arduous nature entailing considerable exposure and many difficulties in regard to labour and supplies, neither of which are obtainable in these wild and uninhabited ghât tracts. Under these circumstances, the forest department has cause to congratulate itself on obtaining so fair a commencement of this important work, as is represented by the above surveyed acreage, and its thanks are due to the Deputy Superintendent for giving this part of his duties so much consideration when other and probably more pressing work was occupying his attention. In this connection, it may be mentioned that the instructions conveyed by the Officiating Inspector General of Forests in his Circular No. 12 dated the 10th June 1889, in regard to obtaining a rough classification of forest growth and soils through the agency of the survey department was brought to the notice of the Chief Commissioner. After due consideration it was decided that, as the Coorg survey was limiting its work to the measurement of boundaries, and avoiding all interior and topographical details with the exception of main roads and rivers, it could not be called on to perform the work indicated. Such details would also have increased the cost of the survey very materially, and it would have been difficult to detach the necessary forest staff, to assist the surveyors, without disorganizing the departmental work.

Working Plans.

11. A working plan of the North Dubari forest (8,027 acres) was prepared and submitted during the year, through the Chief Commissioner, for the Inspector General's scrutiny. This plan was drawn up on the lines sketched by Mr. Hill in his Coorg inspection report. The Deputy Conservator also hoped to have been able to submit similar plans for the South Dubari and Devammachi forests; but so much delay occurred in the collection and preparation of the preliminary data, owing to the whole time of the south Coorg Ranger being employed, from an early date in the season, on checking forest timber stock and in connection with forest fires, that the open season closed without this work being completed. The data mentioned in former reports as having been collected for the Mawukal plan turned out, on examination, to be so meagre that the work has had to be revised. But the preliminary work, in regard to all these forests, is now so far advanced that there is every hope of plans being prepared for them and forwarded to the Inspector General of Forests before the close of 1891—92. If a trained junior assistant were attached to the division, as formerly, considerable impetus might be given to this important duty.

The preparation of the Dubari plan entailed no extraordinary expenditure, all details having been collected by the north Coorg ranger and the local staff; and the cost which is debited to the work in the following statement, is made up of the pay and travelling allowance of the Deputy Conservator and Ranger during the time they were engaged on the duty. This is mentioned, in explanation of the fact that the cost of preparing the simple plan under remark appears in the statement to approximate the expense incurred on the more elaborate plans for Nalkeri and Hutgut. The cost debited against the latter does not include, however, any portion of the Deputy Conservator's pay and travelling allowance.

12. An annual plan of operations was forwarded to the Chief Commissioner for information as usual, which, except in regard to timber operations, was fairly well worked up to.

Statement shewing the progress in and cost of preparing working plans

Name of Forest.	Area in square miles for which plans have been prepared.	Area in square miles for which plans are being prepared.	Area for which plans are to be prepared.	Cost per square mile.
Nalkeri	40	„	„	37 0 0
Hutgut	43	„	„	
North Dubari	13	„	„	37 0 0
South Dubari	„	5	„	
Davammachi and Mawukal ...	„	28	„	30 0 0
Other forests	„	„	118	
	96	33	118	

CHAPTER III

Protection and Improvement.

Establishments.

13. Mr. McKee, the Deputy Conservator, was in charge of the division during the whole year.

A transfer of all temporary to permanent establishment was sanctioned by the Government of India and carried out during the year. At the same time, the scale of pay was slightly raised in all grades and made more in accordance with that sanctioned for other provinces. The scale of pay for Rangers and Foresters will be considered a maximum one to be worked up to gradually.

The following statement gives a detail of the establishment as it stood at the commencement and close of the year:—

Commencement of year.			At the close of the year.
Permanent.	Temporary.	Total	Permanent.
1 Deputy Conservator ..	„	1	1 Deputy Conservator.
2 Rangers	2	4	4 Rangers
13 Foresters	7	20	18 Foresters.
73 Guards	11	84	90 Guards.
1 Head Clerk ...	„	1	1 Head Clerk.
2 Clerks	1	3	3 Clerks.
			1 Record Keeper.
2 Vernacular Clerks ..	4	6	6 Vernacular Clerks.
3 Orderly Peons ...	„	3	4 Orderly Peons.
1 Lascar	„	1	1 Lascar.
		123	129

The arrangement caused no extra appointments, except under the head of guards, which was increased by 6 individuals. The record-keeper and additional vernacular clerk were obtained by reducing the Foresters from 20 to 18, two men of that grade having been employed in the head office for several years past. But when fully worked up to, the new scale is calculated to entail an increase of expenditure on former years of Rs. 3,036

14. Much difficulty is still experienced in obtaining men to fill the guards' posts, owing to the high rate of wages and great demand for labour ruling throughout the province. Forest work is not appreciated, and the smallest cause for discontent is sufficient to make the men resign or desert without any sort of warning; and it seems quite exceptional for a guard to remain at duty for more than a year or two. During the year under report there were 28 changes in this grade out of a total strength of 86 members, or 33 per cent, owing to deaths and resignations—the last cause accounting for 26 of the vacancies.

General Protection and Breach of Forest Rules.

15. Appendix B shews the number of cases in which it was necessary to punish members of the staff. One Forester was dismissed for conduct subversive of discipline, and general irregularity of procedure; and one degraded for a period of three months for purchasing land without obtaining the necessary sanction of the Deputy Conservator. A clerk was also suspended for 6 months for absenting himself and leaving the province without permission. The other cases were neglect of duty punished with fine and need no remark.

16. Only 6 cases, involving 8 persons were brought into court, in which convictions were obtained in 5 cases involving 7 persons—1 person in one case being acquitted. The convictions represented 83·33 per cent of the prosecutions. (*Vide* form 50).

But besides the above, 7 cases involving 7 persons were compounded under the Forest Act by the Deputy Conservator, either by confiscating the tools or produce concerned, or in case of unlicensed shooting, the guns, when of little value, or by imposing a fine. Illicit grazing was punished by impounding the cattle, and it is on record that during the year under report 2,327 cattle of all kinds were dealt with in this manner, on which pound fees amounting to Rs. 598-6-0 were recovered.

Forest Fires.

17. Arrangements were made to protect 1,30,649 acres of forest from fire, being 911 acres in excess of last year's attempt. The increase was made up as follows:—

	Acres.
Victoria Estate added to the Merkara fuel plantation...	82
Bekke Hari sandal *urudve* added to the Jainkal reserve	295
By net re-measurement as per form 49 &c.	534
Total.....	911

But of this area, I regret having to report that only 1,02,165 acres were successfully protected—28,484 acres, or over 21 per cent, having been burnt. The cost of the work came to Rs. 4,536 or 8½ pies per acre.

18. The above results compare most unfavourably with last year's work, when 97 per cent of the forest was protected at a cost of 6¾ pies per acre.

19. The following statement gives in abstract form the details of the fires that occurred in each forest:—

Name of Range.	Name of forest.	Area of forest.	No. of fires.	Total area burnt.	Percentage of failures.	Remarks.
North Coorg.	Kattepura	585	3	26	4	
	Mensa Betta	276	...	...	...	
	Alur	395	...	...	...	
	Malambi	3,732	...	...	...	
	Nidta	2,688	...	...	...	
	Yedavnad and Gadinad ...	6,871	3	1,320	19	
	Jainkal and Bikkihari ..	1,562	...	...	...	
	Anekadu including Baktonkote	7,590	5	†770	10	†Including the Anekadu teak plantation. *Including the Bakka Sandal plantation.
	Attur	5,164	2	*83	1	
	Dubari	11,363	5	620	5	
	Fraserpet sandal plantation ...	34	...	...	...	
South Coorg.	Devammachi and Mawukal...	17,673	5	522	2	
	Tittimutti sandal plantation ..	25	...	...	...	
	Arkere	18,262	23	12,801	70	
	Hutgut	27,520	12	6,514	23	
	Nalkeri	26,075	4	5,824	22	
	Kutompole teak plantation ...	526	...	...	...	
	Merkara fuel	318	1	4	1	
	Total.....	1,30,649	63	28,484	21	

There were 63 separate fires in all; and from enquiries made on the spot, either by the Deputy Conservator or one of the Rangers immediately after their occurrence, these fires may be attributed in the following proportion to the following causes:—

	No. of fires.	Area burnt. Acres.
To accidents while line Burning ...	2	74
Crossing the line from outside ...	7	2,269
To *kumri* clearing for plantation work ...	3	1,370
To incendiarism	1	216
To unknown causes	50	24,555

20. The season was a most unfavourable one for this work—the South West monsoon being from 10 to 15 inches (25 to 33 per cent) less than the average, while the rain resulting from the North East monsoon, which is generally distributed over October and November, fell this year in rapidly consecutive down pours of a cyclonic nature, in October, after which there was no rain to speak of until late in April, when the usual coffee showers were received. The short rains were succeeded by unusually early east winds, which commencing to blow in the beginning of December established themselves until the middle of April, and rendered the forests very inflammable, and fires most difficult to extinguish when once fairly under way. Three bad fires, burning 1,985 acres in the Nalkeri and Hutgut reserves, crossed over from the adjoining Mysore state about Christmas—a date on which in ordinary years, and in that neighbourhood, the forests would be considered perfectly safe from such an accident. Our lines had been cut and cleared, but not thoroughly burnt, and we were doubtless caught unprepared.

21. But in spite of the unfavourable season, there is good reason to suppose that the efforts of the staff would have been successful in protecting a much larger area than that reported, had we only had accidents and the results of ordinary carelessness to contend against. This however was not the case; and it may be stated with much confidence that the larger number and most destructive fires were designed either for purposes of *shikar*, or by graziers, with the view of stimulating a new grass crop, or of burning down the standing residue of the old one; while in some cases, it is feared they were caused by persons bearing a grudge against the department.

During the month of March, in which most of the damage was done, fires were continually being lighted inside the forests. They always occurred inside, and under circumstances which increased our difficulty in extinguishing them. For example—several fires occurred on bazaar days, when it was impossible to collect assistance and when the forest coolies were absent on *private affairs*. They were also often lighted late in the evening, so that several hours probably elapsed before they were discovered; and they were lighted in two or three places at once, so that our available parties were split up and often inadequate, in consequence, for the work in hand. These remarks are especially applicable to the Arkeri reserve, where 23 separate fires occurred in March, by which 12,801 acres were burnt, or 70 per cent of the entire forest. No sooner were fires extinguished in this area, than others were lighted, until the staff became completely exhausted and demoralised by the continual day and night work carried on under the most trying and disheartening circumstances. Two Foresters were severely burnt in the performance of these duties. In one case, in the Anekadu reserve, a fire was lighted in the early morning about 3 miles from the forest head quarters, and when the staff were absent and engaged on putting out this fire, a second one was lighted inside the large teak plantation at Anekadu, which was burnt from end to end. The Commissioner was good enough to inspect this latter area, accompanied by the Deputy Conservator, and the local Soubedar was ordered to hold an inquiry into the origin of the fires, and to offer a reward of Rs. 50 for any information tending to convict the offenders, but no information was obtained. In the Dubari forest—and this most unfortunately was the only case in which an offender was caught—a man was arrested by a guard when actually applying a lighted stick to the grass, and on conviction imprisoned for three months.

22. These facts, coupled with the circumstances relating to the planned fires of Hutgut and Nalkeri, recorded in last year's report, leave no doubt in my mind

that by far the larger number of our fires are caused, not by accident or by carelessness, but on purpose ; and that unless the forest department receives extraneous assistance either from the revenue department or through some repressive action of government, such for instance, as suspending the exercise of rights in those areas where fires are most frequent, the work of protection will be more a matter of fortune, dependant on a wet or dry season, than the result of protective arrangements, however good these latter may be. It must, however, be confessed with regret that the forest officials have dismally failed, especially in south Coorg, to lessen the offence of forest burning by arresting the offenders; but no offence probably is so easy to commit without being discovered, and the conditions of the establishment in Coorg are adverse to an energetic prosecution of the offenders.

23. It is the general opinion of the forest officials, and, I may also add, of the planter community, that one of the chief causes of these forest fires is the large number of guns owned not only by Coorgs and *jama* ryots, according to the Arms Act, but by Kurubars and other jungle tribes, most of whom appear to possess one of some sort, but without license or authority for such possession. Our forests are still visited by these unlicensed sportsmen, who in the off season, which unfortunately is also the dry hot season, are reported to burn the grass for tracking purposes and generally to enable them to move about freely. Were the Arms Act to be enforced in this province, and only a limited number of persons, besides those specially mentioned in the Act, allowed to use guns, I am persuaded there would soon be some diminution in these fires.

During the season under report five cases of unlicensed shooting were reported, in three of which, the Deputy Conservator compounded the offence by fining the offenders or confiscating the guns, one person being prosecuted and fined by a magistrate ; and one case being still pending. But the number of cases that came to light, and in which the trespassers are arrested and punished, represent but a very small proportion of the undiscovered offences.

24. The remarks in this connection made in last year's report regarding forest rights still hold good. The settlement has not yet been confirmed, because no Settlement-officer has been available during the year to take up the cases sent back by the Appellate Court for further inquiry and revision ; and the delay in finally settling what rights are to be enjoyed by the people may continue to have a disturbing effect.

25. A further source of trouble in Coorg, and perhaps a chief one, is the fact that every official dismissed from the department, or who leaves from motives of discontent, becomes a permanent source of possible mischief. For no Coorg, and very few of the class from which our guards are recruited, leave the province ; and the latter generally reside in the neighbourhood of the forest in which their duties have been performed. Nothing is easier than for such men to satisfy their wounded feelings by firing the forest and bringing discredit on the local staff. Forest service in the lower grades is at a discount, and the guards are continually resigning the change of *personnel* under this head varying from 20 to 40 per cent per annum. But although this constant change is going on, the men leaving the department, for the most part remain in the neighbourhood ; and so it happens that, a considerable proportion of the resident population, among certain castes or tribes, have at some time been in the department, and may have been dismissed from it, or have resigned, as they frequently do, because of being punished by fine. Unfortunately, their place cannot be filled up with outsiders, and we have to make the best of the material at our disposal; but such a state of things is not conducive to improvement in our protective arrangements.

26. It should also be noted how difficult it is to collect labour for the purpose of extinguishing fires, owing to the peculiar village system of the country. In the neighbourhood of our forests, there are no congregated villages as in Upper India, from which large bodies of men can be rapidly collected and forwarded to the scene of the fire. The so called village, in Coorg, consists of several small hamlets or rather farm-steads, each situated in its own little vally or gorge, and separated from its neighbour by considerable distances of rough hill or forest country. To collect even a few hands from these scattered habitations is a work of difficulty and much delay ; and we are in consequence, to a great extent, dependant on the labour employed or resident in the forest for our requirements when fires occur: But such labour is often inadequate to extinguish the fierce conflagrations, especially of our

southern forests, and this doubtless is a cause why the Coorg fires are so extensive and destructive, for in many cases, when once fairly underway, they are stopped only on approaching an internal fire line, or the bank of some considerable stream or river.

27. All the extensive evergreen forests, including the reserves, situated on the western slopes of the ghâts escaped being burnt as usual ; but huge fires traversed all the grass lands and most of the small isolated evergreen *sholas* and old abandoned coffee lands located on the eastern or Coorg slopes.

Grazing and Fencing.

28. The following cattle were grazed in the reserves, (*vide* Appendix C).

Buffaloes	303
Bullocks and Cows	12,892

Of the above, 9,643 bullocks were admitted of right, and the balance paid dues varying from four annas to one rupee per head according to locality.

29. During the year proposals were made to close against grazing certain blocks of the north Coorg reserves, and rules were framed by the Deputy Conservator and approved by the Chief Commissioner, for the regulation of grazing generally. According to this arrangement, the following areas will be opened and closed against cattle in the forests of north Coorg, where the grazing pressure is most intense. In south Coorg, the grazing is not nearly so excessive and is generally confined, for the most part, to the edges of the forest or to swamp lands situated inside them, in which localities there is little or no tree growth. For these forests, therefore, it is not at present considered necessary to make any special arrangements. The areas indicated as closed in the following statement were to some extent protected during the past season. It will doubtless take a year or two to render the protection complete :—

Name of forest.	Area of forest acres.	Area open to grazing.	Area closed to grazing.	Percentage closed.
Mensa Betta	276	...	276	100
Alur	395	395	...	...
Malambi	3,732	2,532	1,200	32
Nidta	2,688	1,988	700	26
Jainkal	1,267	867	400	31
Yedavnad	2,871	1,971	900	31
Gadinad	4,000	3,000	1,000	25
Attur	5,154	4,304	850	16
Anekadu and Baktankote	7,590	6,190	1,400	18
Dubari	11,363	6,863	4,500	39
Total.....	39,336	28,110	11,226	28

30. There is a grazing rule that presses hard on the people of Coorg and that might, I think, be relaxed with some advantage. All cattle, according to this rule, are turned out of the forests on the 1st January, and are not allowed in again until the 1st July. The people are thus deprived of grazing during the period (the hot months) when fodder is most difficult to get, and when the cattle are most dependant on the forest grazing grounds. And as might be foreseen, the rule to a large extent is evaded, by grazing being obtained at night or with the knowledge and doubtless sometimes with the sanction of the local forest guard. The rule is also certain to cause much discontent, and may perhaps be credited with some of our forest fires. It is proposed to address the Chief Commissioner with the object of effecting some modification in this restriction.

Natural Reproduction.

31. Under this head, there is little to add to the remarks recorded in last year's report. So long as we fail to protect our forests from fire, very little improvement can be expected in this respect. A close examination of the small seedling plants, where these are present in the under-growth, has shewn them to be of considerable age, their roots being quite out of proportion to their size above ground, and being

marked with the old scars of former shoots, which time after time have been burnt or browzed down to the ground. In addition to fires and grazing, wild elephants may also with certainty be credited with some of the damage sustained by our forests, especially our teak forests, in regard to backward reproduction. The teak is generally associated here, as elsewhere, with D. Strictus which latter bambu is a favourite fodder of the elephants, who apparently avoid the thickets of Bambusa Arundinacea on account probably of its spiny nature. The teak blocks are therefore more frequented by these animals than other parts of the forest, in consequence of which, they are trampled up and down and suffer necessarily a good deal of damage in regard to both seedling and sapling growth, the latter being much pulled about and disfigured in the process of supplying the elephants with fans and fly flappers. This cause of injury, however, may be expected to decrease as the animals are gradually caught by the Mysore Khedda Department.

Artificial Reproduction.

32. The following areas were added during the year to the regular plantations.

Sandal.

	Acres.
Bakka	20
Herekeri	25
Kargodu	8
Gangwara	15
Teak	
Kutompole	48
Herekeri	1
Fuel.	
Merkara	14
Total.....131	

33. The season was an unfavourable one for all kinds of planting. A very short monsoon, badly distributed, and marked by long breaks, when a fierce sun scorched the young plants, proved most adverse to successful work. The sandal seed, although, sown in early June, failed to germinate in most places until late in August, and the plants in consequence were much below the required size when the rains ceased in September. But for some heavy showers in October, the work done under this head would have been a complete failure. This late rain however saved us, and although the season's work has not turned out all that could be desired, it is still far from a failure, except at Bakka, which area was again burnt for the fourth year in succession. This latter plantation was very fairly forward, having benefitted most of all by the North East Monsoon, and been specially protected by external and internal fire lines, which together covered a width of 120 feet. The adjoining *urudve* had also been roughly fired early in the season as an additional protection; but in March, the Lantana, which is very luxuriant in this latter area, caught fire, and blazing embers were blown across the line into the plantation. Several men, including the Forester, were present at the time, and managed to extinguish the flames more than once, until the plantation became ignited in so many places that their efforts were poworless to prevent the fire spreading; and when once the latter obtained a start in the long grass which surrounded the plants, the destruction of the area was the work of a few minutes. The Deputy Conservator examined the spot the next day, and was satisfied from the appearance of the fire lines and the bambu fence, which remained intact, that the fire had occurred as reported. This area will for the present be abandoned.

At Herekeri, the plants are small and weedy, but 75 per cent of the pits contain at least 2 or 3 plants which may be expected to come on during the present rains.

At Kargodu, about 50 per cent of the pits are stocked with stronger plants than those at Herekeri.

At Gangwara, 60 per cent of the new area is fully stocked with strong healthy plants, and the balance, about a quarter, stocked with plants less well developed.

34. Extensive repairs were also carried out over all the above areas, as well as at Banwara, Gandadagundi and Bambukadu, with partial results as above described. At Bambukadu, however, the work was a total failure. Sixty-five acres of new land have been cleared at Gangwara, Hurlikal and Bambukadu for extending those plantations in the coming rains.

35. Besides the above regular plantation work, an experiment was tried in the Nidta forest, in accordance with instructions recorded in the Inspector General's "Suggestions for Coorg," of dibbling sandal seed into the ground under the natural shade of the forest. Twenty-five acres were treated in this manner, and in spite of the bad season, the results were sufficiently encouraging (25 per cent of the area containing plants at the end of the hot weather) to justify a more considerable trial during the coming rains. The cost of this experiment came to only Rs. 3¼ per acre.

36. Teak planting was restricted to Kutompole, in accordance with the new procedure laid down by the Inspector General. About 48 acres were planted at this place; but owing to careless work and a long break in the middle of the planting, by which this latter was delayed and many plants killed, the above area, when examined in November, was not much more than ⅔rds stocked—about 15 acres having to be condemned as a failure, and to be re-planted. Sixty acres of new land, were also cleared for future planting in 1891, and a new nursery formed, which has since been stocked with enough strong plants to put out 100 acres.

37. Besides the above, 30 acres of natural blanks were sown with teak in the North Dubari forest on land previously occupied by D. Strictus, which had seeded and died down. The teak germinated late in the season, owing to the short rainfall, and the small plants had a hard fight against the dense growth of young bambu resulting from the general fall of seed. A small proportion only were alive in April, and on the whole, the experiment, which is the third or fourth of its kind, was not very successful.

38. During this year also, arrangements were made with some kurubars to *kumri* certain areas of inferior forest, on the understanding that they would also sow the fields with teak seed on the Burma principle. About 60 acres have been cleared, for this purpose, in the Mawukal-Arkeri and Nalkeri forests, and special instructions issued for ensuring the experiment being carefully supervised by the South Coorg Ranger. The result will be reported on next year.

39. The Anekadu teak plantation of 40 acres was burnt in one of the March fires as reported in paragraph 21. The result has been to damage the leaders of all trees, but to kill none. All the worst cases were cut back and the plants have now thrown up strong new shoots.

40. The 14 acres extension of the fuel plantation at Merkara was a complete success, although at one time, owing to the long break in the rains, it was in much danger. The plants put out were principally Grevellia and a few Casuarina,—the latter in sheltered localities. Three thousand plants were also put out to supply vacancies in previous year's plots, and a good deal of opening out and attention given to the older areas. The fuel reserve was also extended by purchasing an adjoining estate of 82 acres, in which coffee had once been cultivated, for Rs. 150, thus making the total area of this tract, 318 acres, of which 152 have been planted up.

41. Form 52 shews a total expenditure for the year of Rs. 6,362 divided over the work as follows :—

Description.	Up-keep of old areas.	Additions during the year.	Preparing ground for plantations of 1891.	Total.
	Rs	Rs	Rs.	Rs.
Sandal	964	694	836	2,494
Teak	928	706	1,351	2,985
Fuel	130	241	189	560
Cultural	...	270	53	323
	2,022	1,911	2,429	6,362

And if divided over the acreage added during the year, the above figures, less receipts recovered, give the following results :—

Description.	Up-keep per acre.				Additions per acre.			
Sandal	964 Rs. / 427 acres.	2	4	1	694 Rs. / 68 acres.	10	3	3
Teak	928 Rs. / 886 acres.	1	0	9	706—387 Rs. / 49 acres.	6	8	2
Fuel	130 Rs. / 138 acres.	0	15	1	241— 87 Rs. / 14 acres.	11	0	0
Cultural	10 acres.	...	...	...	270 Rs. / 55 acres.	4	14	7

But to obtain the true expenditure per acre incurred on the additions of the year, it is necessary to add to the above figures, the cost of clearing and preparation debited to last year's accounts, as shewn in the statement under paragraph 42 of last year's report. The cost of this work per acre will then be as follows :—

Sandal	.. Rs. 14 15 0	Fuel	.. Rs. 11 0 0
Teak	.. „ 15 13 8	Cultural	.. „ 5 0 0

42. These rates for up-keep and new work compare most favourably with those of former years, especially in regard to the up-keep of the plantation, the chief economy having resulted under the item of weeding. The older plantations are no longer weeded as before, being now merely kept clear of climbers ; and it is satisfactory being able to report that this change in procedure has had a marked effect on the trees as well as on the expense of formation. The sandal plantations, especially at Gangwara, Balumani, and Nagraholai have benefitted by the ground being kept covered and cool during the hot weather, the stems of the trees having, to a great extent, cleared themselves of the lichens and fungoid growths that were so conspicuous a blemish on them ; and generally speaking they look more healthy and vigorous than when it was customary to clean-weed them all through the cold season.

43. With only a smaller area of 16 acres of plantation put out, and a larger area under cultural operations of 44 acres, there was a saving of expenditure on the year's work as compared with that of last year amounting to Rs. 3,509.

44. At the close of the year, the total area of planted land, after deducting failures and cultural operations, stood as follows :—

Sandal	... ...	475 acres.
Teak	.. ..	920 „
Fuel	.. ..	152 „

Cutting of climbers and Forest Weeding.

45. The following areas were cleared of climbers and weeded of growth obstructive to seedlings of the better timber species. Altogether 1,753 acres were treated at a cost of Rs. 344.

			Acres.	Rs.	A.	P.
Nalkere forest.	Ammale compartment	... ...	183	39	0	0
Do	Mullu Pulli do	... ...	1,405	216	0	0
Dubari forest.	Chikkal Manti do	... ...	105	53	10	0
Anekadu forest	... ...	... ...	40	24	12	0
Hutgut Karmad	... ...	... ...	20	11	1	4
			1,753	344	7	4

The girdling of inferior species formerly practised as an item of this work has been greatly curtailed.

Exotics.

46. There is not any thing of interest to report under this head.

Communications.

47. No new roads were made during the year, but repairs costing Rs. 581 were carried out over old roads as detailed below. Arrangements were also made, and a contract given, to thoroughly well gravel and re-drain about 7 miles of the Hunsur Nalkeri cart road in its worst section between Veeranhosalli and the Heggadevankote main road. This work is estimated to cost Rs. 2,801, and will be reported on next year.

48. It has also been proposed to make a road connecting the Nalkeri forest with the town of Antarsante in Mysore, a distance of 17 miles, with the object of forming a timber depôt at this place. The local timber sales are estimated to be worth Rs. 7,000, and it is hoped that dealers may also be attracted from Nanjangodu, which is now the terminus of the Mysore State Railway.

Details.

Repairing cart tracks in Dubari forest for extraction of timber including repairs of bridge ... ... Rs	9	2	4
Repairing cart tracks to Sanivarsante depot ... ... ,,	5	6	0
Repairing road near Nalkeri ferry ... ... ,,	3	0	0
Repairing road at Kutompole ... ... ,,	6	0	0
Repairing road at Maldare Dubari ... ... ,,	9	2	8
Repairing Hunsur-Nalkeri road ... ... ,,	454	5	0
Repairing the Menukolli cart road for extraction of fuel ... ... ,,	17	4	0
Repairing road at Arkeri-Gunagur forest ... ... ,,	33	4	0
Repairing road at Karmad forest ... ... ,,	23	4	0
Repairing road at Tittimutti-Maldare ... ... ,,	20	13	0
Total Rs.....	581	9	0

Buildings.

49. No new buildings were erected. The following repairs, mostly of a petty nature, were executed. Those requiring remark are the roofing of the Kargodu hut with Mangalore tiles which was completed. The roof of that portion of the Tittimutti bungalow given to the Forest Department was re-modelled and also tiled with Mangalore tiles. It was also re-painted and generally done up. A Cutcherry for the Ranger's vernacular clerk was built at Kutompole, and tiles purchased for some of the out offices.

Details.

Dubari bungalow repairs ... ... Rs.	69	1	8
Kargodu bungalow repairs and tiling roof with Mangalore tiles ... ,,	116	0	10
Kargodu hut repairs ... ... ,,	20	8	6
Maldare hut repairs ... ... ,,	25	0	0
Maldare well repairs ... ... ,,	8	0	0
Maldare stable repairs ... ... ,,	13	8	0
Tittimutti bungalow roofing with Mangalore tiles, &c., repairs ... ,,	373	0	0
Tittimutti Cutcherry repairs ... ... ,,	8	3	4
Anekadu Cutcherry repairs ... ... ,,	18	12	0
Anekadu hut repairs ... ... ,,	14	8	0
Nalkeri stable repairs ... ... ,,	6	2	8
Nalkeri hut repairs ... ... ,,	6	9	4
Nalkeri well repairs ... ... ,,	21	6	0
Kutompole stable repairs ... ... ,,	9	13	0
Kutompole cooly line repairs ... ... ,,	30	2	0
Kutompole Forester's Cutcherry repairs, &c. ... ... ,,	82	4	6
Kutompole bungalow repairs ... ... ,,	0	8	0
Building stables, cooly lines at Kutompole .. .. ,,	64	0	9
Murkal hut repairs ... ... ,,	42	5	4
Murkal tank repairs ... ... ,,	4	2	8
Gangwara hut repairs ... . ,,	13	11	6
Armanebane bungalow repairs ... ... ,,	20	13	4
Karmad Cutcherry repairs ... ... ,,	35	0	0
Karmad well repairs .. .. ,,	24	13	4
Herekeri hut repairs ... ... ,,	1	4	0
Arkeri cooly line repairs ... ... ,,	19	13	4
Paid municipal tax of the Deputy Conservator's office for 1889—90 ... ,,	13	0	0
Rs.	1,062	7	7

CHAPTER IV.

Yield and Working.

Departmental operations.

50. The inaccuracies pointed out in last year's figures under this head, by the Government of India in their review on the annual report, have been corrected. The discrepancy noticed in regard to the number of bambus quoted as out-turn in paragraph 49, and as exhibited in form 55, was owing to the former dealing with out-turn, or bambus *felled*, and the latter with bambus *removed* from the forest. There was a slight difference between the two—the former being 9,600 and the latter only 8,375 as shewn in the form.

51. The following comparative statement shews the out-turn of the forests obtained through departmental agency during the past two years— forms 53, 54 and 55*:—

Year.	Timber, cubic feet.	Sandal.		Bambus.	
		Tons.	Cubic feet.		
1889—90 ...	70,196	60½	2,464	*9,600	*Form 53.
1890—91 ...	6,331	142	5,783	11,880	

It will be seen from adapted form 53 that timber work was practically stopped during the year, only 171 trees having been felled as compared with 1833 during the previous season. The reason for this stoppage of work was explained in paragraph 52 of the last annual report, to be in consequence of the large balance of timber said to be lying in the forests—sufficient it was computed to supply three years' market demand—and to admit of this balance being checked and if necessary adjusted. The latter work had become urgent, as no check had apparently been made for several years. It has been completed during the year under report, having taken a full year to carry out, owing to the logs being scattered all over the forests and being difficult to find, except in the dry season, when owing to the dying down of herbaceous under-growth, the timber became visible to the search parties. The result has proved that a large quantity of timber is either so damaged as to be unsaleable, or is missing; and the Chief Commissioner has been addressed with the view of writing this portion of the timber balance off our books. The principal cause of this deficiency is doubtless the extensive fires that unfortunately are so frequent a feature in our forests, especially those forests in south Coorg, where timber work is most developed; and I am of opinion that allowing for a reasonable margin, we should be careful not to fell more timber in future than we can remove from the forests, within a working season. I think also, it will be especially well to restrict fellings to the narrowest requirements in those forests for which no plans are yet prepared; for I am impressed with the idea that all of them, except Arkeri, contain much less exploitable wood than is supposed, and that there is a general deficiency in them of second class trees that should form the coming crop, consequent on a former heavy working for poles of what are now reserved kinds of wood. The present timber market is also slack—the only large public work being a State Railway, the requirements of which are principally supplied from State forests. Prices remain low—the average prices obtained this year for Coorg timber being lower than usual and only the best timber commands a ready sale,—5,971 c. ft. purchased at our auction sales during the year, and on which a deposit of 10 per cent was forfeited, having been thrown back on our hands.

But there are reasons for supposing that the demand on our forests, in a few years may be greater than at present. The Mysore forests are not inexhaustible, and should any of the railway lines be made that are talked of for exploiting the produce of the Cauvery valley, or for tapping Coorg, our forests will be taxed to the utmost for supply their timber requirements.

52. Fellings have been re-commenced in Nalkeri, Hatgat, Arkeri, Mawukal and Dubari.

53. Form 56 shows that only 37,590 c.ft. were removed from the forest to selling depots. This is much under the carting operations of former years, and is accounted for by the failure of the contractor to carry out his undertakings, and has occasioned a modification in this branch of work, which it is hoped will be more successful during the present season. It must be confessed however, that the failure, above mentioned, was to some extent induced by the stoppage of felling operations, whereby the work of carting, as it was more than ordinarily scattered, became in proportion more difficult and tedious to perform. And this difficulty was enhanced by two of our *coups* in Hatgat and Mawukal being rendered inaccessible to carts early in the season, owing to the absence of water in those forests, consequent on the very short rain fall.

54. The sales during the year—as exhibited in form 56—approximate those of last year, being as follows:—

Year.	From market depot cubic feet.	Form forest depot cubic feet.	Total cubic feet.
1889—90	56,861	2,424	59,285
1890—91	55,871	1,129	57,000

The prices realized were however somewhat less than those of last year as follows:—

Year.	Teak per cubic feet.	Honne per cubic feet.	Other wood per cubic feet.
1889—90	0 14 0	0 10 4	0 7 7
1890—91	0 10 11	0 10 3	0 6 7

SANDALWOOD.

55. Owing to the restriction of timber work, resulting in funds becoming available, and to the fact, as expressed by the Inspector General on page 26 of his suggestions, that there is no object in limiting the collection of dead and dying sandal trees, which, if left on the ground, would probably deteriorate or be burnt, the work under this head was considerably extended,—142 tons being brought to depot as compared with 60 tons last year. The cost of collecting and preparing for market came to Rs. 37 per ton as compared with Rs. 22* last year, owing to the work being performed by contract and to the longer distances from which the wood had to be carted. Last year the work was done by the departmental staff; but it was found to interfere with their other duties, and they could not have been employed to collect the above large quantity without greatly hindering their immediate forest work.

Of the above, 114 tons., 2 cwts., and 1 qr., were sold for Rs. 45,808 (excluding fractions) or at Rs. 489 per ton for 89 tons., 2 cwts., and 1 qr. of good wood, and Rs. 88 per ton for 25 tons of inferior wood. These prices are the best that have yet been realized, and prove the steady demand for this valuable product.

The total out-turn of the year is believed to have been yielded by 5,700 trees which would give about one ton of clean wood per 40 trees.

*The price of collection quoted in last year's report as Rs. 18—12—0 per ton was incorrect—9 tons collected being paid for during current year.

Produce removed by purchasers.

Timber.

56. Form 54 exhibits the equivalent of 3,01,160 c.ft., of timber as having been removed from the forests through this agency, of which 1,28,514 c.ft., were purchased from the reserves, and 1,72,646 c.ft., from the protected forests. These figures compare with those of last year as follows:—

Year.	From reserves, cubic feet.	From protected forests, cubic feet.
1889—90	1,10,179	90,168
1890—91	1,28,514	1,72,646
Difference.....	+ 18,335	+ 8 2,478

The plus difference, in favour of the year, being owing to a larger demand than usual on the reserves for poles of inferior woods, and to the inclusion, under removals from protected forests, of the timber purchased from government under the Waste Land Rules, for which a separate column has been specially opened in form 54.

Bambus.

57. Form 55, shews that 4,70,063 bambus were removed as compared with 2,68,541 last year. There is a steady increase in the demand for this produce.

Free grants.

58. The following were given under this head:—

Trees	=	3,140 cft.	=	Rs. 785
Bambus	=	4,436 „	=	„ 40
				Rs. 825

59. No produce was removed by right holders; but grazing was enjoyed of right for 9,643 cattle at an estimated value of Rs. 2,411 or four annas per head.

Waste land sales.

60. The large sum of Rs. 13,189 was recovered under this head during the year, Rs. 8,249 being on account of coffee lands and Rs. 4,940 on account of encroachments, building sites and for extended dry and wet cultivation. It would also appear that Rs. 3,768 of the above sum was recovered on account of outstanding balance due from previous years, and Rs. 9,421 on account of transactions effected in the current season.

The collection of these monies is made by the revenue department, on timber bills prepared by the forest department; and the duty of preparing these valuation statements has for some years past caused a very considerable increase in the work of the two forest Rangers principally concerned. During the year under report I find that 234 valuation statements were thus prepared, necessitating the enumeration of timber on 636 acres of land, valued at Rs. 19,329, some of which had to be checked and revised by the Deputy Conservator; and it must be borne in mind that this work can only be done, as opportunity offers, and when more urgent departmental work is not engaging the Ranger's attention. Under these circumstances, I think it will be conceded that in completing the above timber bills during the year, the forest staff has done its share of duty in transacting with fair despatch, a branch of work regarding which, complaints of delay are sometimes heard.

Cardamom *males*.

61. Six new *males* were leased during the year for a sum aggregating Rs. 84 per annum. The present condition of these estates is not satisfactory, as more fully explained in paragraph 72 of the next chapter. There was an outstanding debt on them at the close of the year of Rs. 32,619.

62. A good deal of information was collected, tabulated and reported on during the year in connection with the *jama malés*, in view of re-assessing these estates according to instructions prescribed by the Chief Commissioner, who has recorded that tenants of these holdings have only an hereditary right of occupancy subject to custom, and not a right of proprietorship. The data obtained tends to prove that the assessment now realized might be slightly enhanced without unduly taxing the resources of these estates; but the present time is very unfavourable for making any alteration that will have effect for a long term of years.

62 *(a)*. The following is a statement of forest produce exported from the province during the year:—

Exports 1890—91.

Description of Timber, &c.	Quantity. No.	Quantity. Cubic feet.	Amount.		
Teak logs	787	21,994	15,282	2	8
Honne logs	472	12,656	7,368	2	3
Beti logs	90	2,576	1,459	3	9
Nandi logs	136	3,349	1,127	3	10
Matti logs	229	4,941	2,415	6	6
Other wood logs	21	613	217	4	0
Teak scantlings	27,684	2,322	2,684	2	8
Irpu, Iyne, Poon, Pine and other logs	419	16,718	1,574	2	8
Miscellaneous poles	13,148	...	6,739	11	5
Sandalwood	114 tons.	...	45,841	8	10
Bambus	4,63,252	...	4,539	4	0
Reeds	5,250	...	5	8	0
Cardamoms	...	...	25,918	5	1
Minor forest produce	...	...	545	6	0
Total.....	5,11,602	65,169	1,15,717	7	8
FROM PRIVATE LANDS.					
1,152 cart loads of timber=at 25 cubic feet per cart load at 8 annas per cubic feet	1,152	28,800	14,400	...	...
18 cart loads of bambus=1,800 bambus at Rs. 1 per cart	18	...	18	..	...
Minor forest produce	...	...	15	..	..
Total	1170	28,800	14,433	0	0
Grand Total.....	5,12,772	93,969	1,30,150	7	8

CHAPTER V.

FINANCIAL RESULTS.

63. The financial results of the year were on the whole satisfactory.

The following statement compares the figures of the year under report with those of 1889—90:—

Year.	Receipts	Charges.		Surplus.
1889—90	92,753	A. 44,069 B 28,351	72,420	20,333
1890—91	1,35,561	A. 36,675 B. 29,143	65,818	69,743
Plus difference.....	+42,808	...		49,410

There was a gross increase in receipts of Rs. 42,808, and a net increase under surplus of Rs. 49,410. The large surplus was the result, partly of an increase in revenue and partly of a decrease under the expenditure head A. I a, timber owing to reasons explained in paragraphs 51 and 53.

64. The fluctuations between the different heads of receipts and expenditure for the two years under remark are accounted for as follows:—

RECEIPTS.

R. I. a. There was a falling off of Rs. 6,101, owing to a smaller sale of timber from depot, and to a fall in the average price realized on timber sold. The only large market requirement during the year, was a sleeper demand for the Mysore-Nanjangodu Railway, which was supplied by the Mysore forest department. There was a sudden call on us for first class teak and bitè in December, but the timber in depot was not considered of sufficiently good quality. The sleepers which have been on stock for the past three years might also have been sold, but they proved on inspection to be undersized and useless for railway purposes. Considerable stocks of timber were also sold from some of the coffee estates that had been purchased within recent years, and which now, to some extent, enter into competition with the forest department—A private depot having been started at Hunsur which is supplied with timber removed from proprietory lands. Such competition however must necessarily be of a temporary nature, while it should be remembered that government has already recovered a very fair price for the timber removed from such lands when these latter were originally sold under the Waste Land Rules.

65. R. I. c. There was a small increase of Rs. 96.

66. R. I. d. The large increase of Rs. 31,379 was owing to the recovery of Rs. 6,327 outstanding at the close of last year, and to a larger sale of sandalwood, during the year, which accounted for an increase of Rs. 25,502, the whole of which sum was recovered within the year.

67. R. II. a. Shews an increase of Rs. 16,603 partly owing to a transfer of Rs. 13,189 from V. c., the result of re-classifying revenue derived from waste land sales, and partly to a bonâfide increase of Rs. 3,414 in the revenue of the year, owing to a development in the demand for wood, especially poles, removed from the forests by purchasers.

68. R. II. b. There was a slight decrease of Rs. 64, on the figures of last year, which again were less by Rs. 396 than the realizations of 1888—89. The falling off is attributable to a larger quantity of firewood being delivered in the town of Merkara by the owners of private lands, especially coffee lands, situated within accessible distances.

69. R. II. c. There was a satisfactory increase of Rs. 1,094, owing to the steady development in the demand on our forests for bambus.

70. R. II. d. There was an increase of Rs. 516, partly owing to the recovery of certain outstandings and partly to the sale of grazing licenses.

71. R. II. e. Excluding cardamoms, the rèceipts under this head were Rs. 1,270 less than those of last year. The falling off is explained as follows:—When the annual auction sale of minor products was held, only 25 per cent of former bids was offered by the purchasers, who stated they had suffered heavy losses in the two former years, owing to the gradual curtailment of paisari forest lands, and to the greater difficulty they experienced in collecting the products of such lands because of their scattered situations. The sale was not completed, in consequence; and subsequently, when the contract was split up and sold locally, the prices realized for the north Coorg taluks proved very small, while no bidders came forward for those of south Coorg, which devolved therefore on the Deputy Conservator to work departmentally. The receipts resulting from the latter transaction have not been credited to the accounts of this year; and it is not likely that the net results of collecting these small products departmentally will prove a satisfactory arrangement. Probably some Rs. 400 or Rs. 500 only will be realized.

72. Under cardamoms, the collection was Rs. 6,524 better than that of last year; but there still remains the large outstanding balance of Rs. 32,619 debited against the current and past years, on this account. It was mentioned in the last annual report that the recovery of half rents amounting to Rs. 10,000 had been postponed with the sanction of the Chief Commissioner, in consequence of the short crops and bad market of last year. It was hoped that prices would improve, and that the

difficulties under which the cardamom lessees worked were of a temporary nature. Unfortunately these expectations have not been realized. Prices have not materially improved for the inferior produce yielded by the Coorg gardens; and although last season's crop was a fair average one, complaints were heard that the gardens had not recovered from the drought of 1889, by which many plants were killed; and which because of the long period required for the cardamom to come into bearing, have not yet been replaced. The crop, therefore, although a fair average one per plant, was a short one in total out-turn. It is apparent from the great difficulty experienced in collecting the rents and by the number of distress warrants that have been executed in this process that the *male*-holders—especially the holders of leased *males*—are in financial difficulty; and it seems nearly certain they need the generous and liberal consideration of government in respect of the payment of rent arrears, to enable them to make a fresh start. It should, however, be noted that the culture of the plant and curing of the berry, as practised in Coorg by the great majority of cultivators, leaves much to be desired. The crop raised is of inferior quality owing to the little attention bestowed on it; so that the best Coorg cardamoms command only 3rd and 4th class prices and cannot be compared to the produce of Ceylon and Travancore, where much more care is given to the cultivation. And inferior as the crop is in quality, much of it is believed to be wasted, owing to the difficulty of procuring labour just when the first flush is about to ripen, in July and August—all hands being then employed in the rice lands or being otherwise unprocurable, so that the full out-turn of the *males* is seldom gathered in and brought to market. This year, the best Coorg cardamoms, raised in the ordinary manner, have sold for prices varying from Rs. 20 to Rs. 30 per maund; but that these prices are capable of improvement is proved by the market realized by a local European planter, who informed me that he obtained an average price of 45 per maund, for his out-turn of last season—his best produce having sold at a rate as high as Rs. 90 per maund. I believe, however, that his market was on the west coast.

73. R. V.c. Under this head the decrease is only apparent, owing to the transfer of Rs. 13,189 to head II a, as explained above. As compared with last year, and including this transfer, there was an increase of revenue formerly credited to this head, of Rs. 5,292, resulting from larger sales of waste land and from the recovery of outstandings.

Expenditure.

74. Under the major head A, there was, as compared with last year, an increased expenditure under certain sub-heads and a reduction under others, resulting in a net reduction of expenditure of Rs. 7,394.

The increase was principally under:—

A. I d.	Sandal	4,483	7,106
VIII a.	Demarcation	1,134	
VIII c	Surveys	1,489	

While the decrease was principally under:—

A. I a.	Timber...	9,992	13,501
VIII d.	Plantation	3,509	

75. The increased expenditure under sandal collecting was in consequence of the temporary stoppage of timber felling and to the saving thereby accruing, which it was considered expedient to partly utilize in bringing to depot a larger quantity of sandal than usual, especially as inspection had proved the presence of large numbers of dead or dying trees that were rapidly deteriorating.

76. The increase under demarcation was owing to an extension of this work in all the forests of east Coorg.

77. Under surveys, the increase was due to a forest survey being sanctioned by the Government of India.

78. The reduction under I. a, was owing to the temporary stoppage of all felling, and to restricted carting operations.

79. The reduction under VIII d, was caused by a cheaper method of plantation management, especially in regard to restricting the work of weeding to the areas recently planted, instead of carrying it out over all areas irrespective of age.

The small differences under other heads require no remark.

80. Under major head B, the expenditure was normal, the only difference being that the pay of certain members of the conservancy and office staffs was debited to this head instead of to A, because of their transfer from a temporary to a permanent establishment.

81. The following statement exhibits the figures of receipts and expenditure for the past five years.

Year.	Receipts.	Charges.	Surplus.
1886—87	99,291	74,088	25,203
1887—88	1,27,028	72,629	54,399
1888—89	1,36,183	80,175	56,008
1889—90	92,753	72,420	20,333
1890—91	1,35,561	65,818	69,743

CHAPTER VI.

General Remarks.

82. It may be mentioned under this head that in consequence of a representation made to the Chief Commissioner by the Coffee Planters Association on the subject of throwing open certain portions of the reserves for extended planting, the Deputy Conservator was ordered to report on the subject, and to shew the relative importance of retaining suitable lands under forest and of alienating the same for coffee cultivation. The required report was duly submitted, recommending under certain conditions the disforestment of 6,000 acres of forest land, situated in the reserves of Dubari, Devammachi and Mawukal. The result of the correspondence on this subject has been for the Government of India to sanction the disforestment of the blocks indicated in the Devammachi and Mawukal forests, aggregating 3,900 acres; but the orders in question were not received until after the close of the year under report.

83. The departmental staff, except in regard to fire protection, worked satisfactorily. In this latter connection, however, it is to be regretted that more energy and intelligence is not exhibited by the Rangers and Foresters in arresting offenders. It is difficult to believe that a determined effort in this direction should not meet with some success, when fires are of so frequent an occurrence as they were this season. The want of detection is specially remarkable in the south Coorg charge, supervised by Ranger Atchiah, where 44 fires occurred, and not one arrest was made.

Ranger Ponnappa was more successful, having saved 93 per cent of his forests and obtained a conviction in regard to one of the fires that were purposely lighted therein.

Ranger Medappa, in charge of the ghât forests worked well in connection with the demarcation and compilation of information referring to the *jama* cardamom *malés*.

The Deputy Conservator is also able to speak well of his office staff, especially of Ram Row and David Francis upon whom much additional work has been thrown at the busiest time of the year, owing to the prolonged illness and absence on leave of the head accountant and chief munshi.

J. McKEE

Deputy Conservator of Forests, Coorg.

Coorg Deputy Conservator's Office,

Merkara, the 26th June 1891.

List of Appendices to the Forest Report for 1890—91.

Form No.	Name of Form.
	APPENDICES.
53 Adapted.	Trees felled by Government Agency during 1890—91
A	Statement shewing the condition of the boundaries, &c.
B	Cases in which subordinates were punished.
C	Return of grazing in the State forests.
D	Progress made on forest-settlement.
E	Statement shewing the cost of plantations.
	ANNUAL RETURNS.
49	Area of reserved forests.
50	Prosecutions for breaches of forest rules.
51	Forest tracts protected from fire.
52	Plantation statement.
54	Out-turn of timber and firewood.
55	Out-turn of minor forest produce.
56	Account of timber and other produce.
57	Abstract shewing the value of timber, &c.
58	Summary of revenue and expenditure.
59	Account current.
60	Revenues received and outstandings, &c.
61	Outstandings and liabilities, &c.
62	Financial statements.

FORM No. 53 (ADAPTED).

FOREST DEPARTMENT, COORG.

Trees felled by Government Agency during the year 1890—91.

Name of Forest.	Description of wood.	Balance of stock.		Brought on stock during the year.			Total.		Issues.		Balance remaining in stock in forest.		Remarks.
		No.	C. ft.	No. of trees.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	
Allur Malambi in Nidta.	Teak ...	...	...	...	...	...	...	...	...	...	...	...	
	Honne ...	70	2,072	...	...	...	70	2,072	29	475	41	1,597	
	Matty ...	30	1,056	...	...	...	30	1,056	12	198	18	858	
	Beity ...	11	298	...	...	...	11	298	8	175	3	123	
	Nandy ...	16	343	4	8	160	24	503	20	361	4	142	8—160 sold from forests.
	Other wood ...	5	192	...	...	...	5	192	1	16	4	176	
	Total.....	132	3,961	4	8	160	140	4,121	70	1,225	70	2,890	
Yedavanad.	Teak ...	12	865	6	10	90	22	955	4	161	18	794	
	Honne ...	155	6,293	2	4	94	159	6,387	84	1,558	75	4,829	
	Matty ...	60	2,002	...	...	...	60	2,002	13	290	47	1,712	
	Beity ...	10	243	...	...	...	10	243	6	217	4	26	
	Nandy ...	17	252	8	11	216	28	468	24	317	4	151	
	Other wood ...	17	226	...	...	...	17	226	3	106	14	120	
	Total.....	271	9,881	16	25	400	296	10,281	134	2,649	162	7,632	
	Do poles ...	4	...	...	...	...	4	...	...	...	4	...	
	Total.....	4	...	...	...	...	4	...	...	...	4	...	
Gadinad...	Teak ...	3	80	...	...	...	3	80	...	...	3	80	
	Honne ...	...	...	...	...	...	...	...	...	...	...	...	
	Matty ...	...	...	...	...	...	...	...	...	...	...	...	
	Beity ...	...	...	...	...	...	...	...	...	...	...	...	
	Nandy ...	...	...	...	...	...	...	...	...	...	...	...	
	Other wood ...	44	1,305	...	...	...	44	1,305	...	...	44	1,305	
	Total.....	47	1,385	...	...	...	47	1,385	...	...	47	1,385	
Jainkal ...	Teak ...	136	1,201	...	...	...	136	1,201	32	575	104	626	1—14 sold from forest.
	Honne ...	1	29	1	1	14	2	43	1	14	1	29	1—14 do
	Matty ...	...	...	...	...	...	...	...	...	...	...	...	
	Beity ...	...	...	...	...	...	...	...	...	...	...	...	
	Nandy ...	...	...	...	...	...	...	...	...	...	...	...	
	Other wood ...	1	7	...	...	...	1	7	...	...	1	7	
	Total.....	138	1,237	1	1	14	139	1,251	33	589	106	662	
Anekadu.	Teak ...	19	495	...	...	...	19	495	2	15	17	480	
	Honne ...	36	742	...	...	...	36	742	2	72	34	670	
	Matty ...	7	271	...	...	...	7	271	...	...	7	271	
	Beity ...	...	...	...	...	...	...	...	...	...	...	...	
	Nandy ...	...	...	...	...	...	...	...	...	...	...	...	
	Other wood ...	10	220	...	...	...	10	220	...	...	10	220	
	Total.....	72	1,728	...	...	...	72	1,728	4	87	68	1,641	
	Bambus ...	3,566	...	...	11,880	...	15,446	...	13,080	...	2,366	...	
	Total.....	3,566	...	...	11,880	...	15,446	...	13,080	...	2,366	...	
Attur ...	Teak ...	519	8,642	9	9	157	528	8,799	10	190	518	8,609	
	Honne ...	64	1,723	15	17	243	81	1,966	15	229	66	1,737	
	Matty ...	28	900	2	2	47	30	947	1	23	29	924	
	Beity ...	...	...	...	...	...	...	...	...	...	...	...	
	Nandy ...	8	246	...	...	...	8	246	...	...	8	246	
	Other wood ...	...	...	1	1	27	1	27	1	27	...	...	
	Total.....	619	11,511	27	29	474	648	11,985	27	469	621	11,516	
Bactankote.	Teak ...	2	26	...	...	...	2	26	1	15	1	11	
	Honne ...	149	3,273	23	37	821	186	4,094	174	3,496	12	598	
	Matty ...	16	350	...	...	...	16	350	6	128	10	222	
	Beity ...	31	230	...	...	...	31	230	...	...	31	230	
	Nandy ...	39	762	...	...	...	39	762	20	488	19	274	
	Otehr wood ...	8	253	...	...	...	8	253	1	17	7	236	
	Total.....	245	4,894	23	37	821	282	5,715	202	4,144	80	1,571	
Dubare ...	Teak ...	302	5,752	...	...	...	302	5,752	193	3,783	109	1,969	
	Honne ...	256	5,571	...	...	...	256	5,571	169	4,115	87	1,456	12—492 sold from forests.
	Matty ...	79	1,580	...	...	...	79	1,580	21	353	58	1,227	
	Beity ...	33	708	...	...	...	33	708	13	225	20	483	
	Nandy ...	85	1,811	...	...	...	85	1,811	34	636	51	1,175	Sold 3—68 from forests.
	Other wood ...	19	371	...	...	...	19	371	10	284	9	107	
	Total.....	774	15,793	...	...	...	774	15,793	440	9,376	334	6,417	
	Other wood poles.	...	...	...	...	...	...	...	...	...	...	...	

FORM No. 53.—(ADAPTED).—*Continued.*

Name of Forest.	Description of wood.	Balance of stock.		Brought on stock during the year.			Total.		Issues.		Balance remaining in stock in forest.		Remarks.
		No.	C. ft.	No. of trees.	No.	C. ft.	No.	C. ft.	No.	C. ft.	No.	C. ft.	
Devamachi.	Teak ...	15	230	...	...	...	15	230	2	24	13	206	
	Honne ...	127	3,613	5	7	178	134	3,791	19	465	115	3,326	Sold 7—183 from forests.
	Boity ...	30	792	2	2	49	32	841	5	117	27	724	
	Nandy ...	35	586	1	2	44	37	630	8	187	29	443	Sold 3—61 from forests.
	Matty ...	23	540	1	1	18	24	567	4	90	20	477	Sold 2—38 from forests.
	Other wood ...	4	93	3	5	118	9	211	7	158	2	53	Sold 4—97 from forests.
	Total.....	234	5,863	12	17	407	251	6,270	45	1,041	206	5,229	
	Other wood poles	176	...	...	...	...	176	...	...	...	176	...	
	Total.....	176	...	...	...	...	176	...	...	...	176	...	
Mawukal.	Teak ...	96	1,135	2	2	44	98	1,179	2	58	96	1,121	
	Honne ...	106	2,794	1	6	172	112	2,966	2	51	110	2,915	
	Matty ...	119	2,457	17	24	469	143	2,926	11	223	132	2,703	
	Boity ...	155	3,025	1	1	18	156	3,043	1	21	155	3,022	
	Nandy ...	141	1,630	4	6	107	147	1,737	6	108	141	1,629	
	Other wood ...	51	1,212	...	...	...	51	1,212	...	...	51	1,212	
	Total.....	668	12,253	27	39	810	707	13,063	22	461	685	12,602	
	Do poles ...	8	...	...	...	...	8	...	...	...	8	...	
	Total.....	8	...	...	...	...	8	...	...	...	8	...	
Arkeri ...	Teak ...	42	646	...	...	...	42	646	...	...	42	646	
	Honne ...	267	3,711	...	...	...	267	3,711	8	163	259	3,548	
	Matty ...	72	1,345	...	...	...	72	1,345	6	109	66	1,236	
	Boity ...	52	1,494	...	...	...	52	1,494	...	...	52	1,494	
	Nandy ...	18	268	...	...	...	18	268	...	...	18	268	
	Other wood ...	21	358	...	...	...	21	358	2	70	19	288	
	Total.....	472	7,822	...	...	...	472	7,822	16	342	456	7,480	
Hatgat ...	Teak ...	182	7,317	...	...	..	182	7,317	61	2,425	121	4,892	
	Honne ...	273	6,280	4	9	251	282	6,531	91	2,637	191	3,894	
	Matty ...	38	826	2	5	150	43	976	21	504	22	472	
	Boity ...	9	239	...	...	...	9	239	5	139	4	100	
	Nandy ...	92	1,868	1	2	38	94	1,906	6	204	88	1,702	
	Other wood ...	...	...	1	2	51	2	51	...	...	2	51	
	Total.....	594	16,530	8	18	490	612	17,020	184	5,909	428	11,111	
	Do poles ...	9	...	...	...	...	9	...	...	...	9	...	
	Total.....	9	...	...	...	...	9	...	...	...	9	...	
Nalkori ...	Teak ...	631	17,530	20	36	968	667	18,498	202	6,644	465	11,854	
	Honne ...	233	4,254	25	51	1,336	284	5,590	65	2,107	219	3,483	
	Matty ...	524	11,526	...	...	...	524	11,526	53	1,331	471	10,195	
	Boity ...	79	2,057	1	1	36	80	2,093	17	564	63	1,529	
	Nandy ...	135	3,425	7	12	415	147	3,840	53	1,561	94	2,279	
	Other wood ...	10	366	...	...	...	10	366	4	220	6	146	
	Total.....	1,612	39,158	53	100	2,755	1,712	41,913	394	12,427	1,318	29,486	
	Grand Total.....	9,641	1,32,016	171	12,154	6,331	21,795	1,38,347	14,651	38,719	7,144	99,628	

ABSTRACT.

Teak ...	1,959	43,919	37	57	1,259	2,016	45,178	509	13,890	1,507	31,288	
Honne ...	1,737	40,355	80	132	3,109	1,869	43,464	659	15,382	1,210	28,082	
Matty ...	996	22,862	20	32	684	1,028	23,546	148	3,249	880	20,297	
Boity ...	410	9,086	4	4	103	414	9,189	55	1,458	359	7,731	
Nandy ...	586	11,191	25	41	980	627	12,171	171	3,862	456	8,309	
Other wood ...	190	4,603	5	8	196	198	4,799	29	878	169	3,921	
Total.....	5,878	1,32,016	171	274	6,331	6,152	1,38,347	1,571	38,719	4,581	99,628	
Teak poles ...	...	...	...	...	...	...	...	...	...	...	...	
Other wood ...	197	...	...	...	...	197	...	...	...	197	...	
Bamboos ...	3,566	...	...	11,880	...	15,446	...	13,080	...	2,366	...	
Total.....	3,763	...	...	11,880	...	15,643	...	13,080	...	2,563	...	

APPENDIX A.

FOREST DEPARTMENT, COORG.

Statement showing the condition of the boundaries of State forests.

Name of Forest.	Artificial boundaries, external and internal.						Natural external boundaries.			Artificial boundary lines cleared.				Boundary marks.												Cost of work.		Remarks.
	Length of external boundaries at the commencement of the year.	External (artificial) boundaries added during the year.	Total length of external artificial boundaries.	Length of internal boundaries at the commencement of the year.	Internal boundaries added during the year.	Total length of internal artificial boundaries.	Length at the beginning of the year.	Added during the year.	Length at close of the year.	Length of new lines cleared during the year.	Length of old lines cleared during the year.	Length of lines left uncleared. Total length of lines maintained.		Total No. at the commencement of the year.			No. added during the year.			Total to be maintained.			No. in good condition at close of the year.			No. requiring repairs.			New work done.	Repairs of existing boundaries.	
														Ditches and mounds.	Number of stones.	Survey stations.	Ditches and mounds.	Number of stones.	Survey stations.	Ditches and mounds.	Number of stones.	Survey stations.	Ditches and mounds.	Number of stones.	Survey stations.	Ditches and mounds.	Number of stones.	Survey stations.			
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	No.	No.	No.	No.	No.	No.	No.	No.		No.	No.		No.	No.	No.	Rs. A. P.	Rs. A. P.	
														RESERVED FORESTS.																
Kattipura	5	...	5	...	...	...	1	...	1	...	5	...	6	...	...	70	23	26	...	23	26		23	26		...	...		28 11 0	9 0 0	3 more pits to be dug and stones to be erected.
Mensabetta	4	...	4	...	...	...	...	...	...	...	4	...	4	...	...	53	32	34	...	32	34		32	34		...	...		34 4 0	17 0 0	2 Do do
Allur	3	...	3	...	...	...	...	...	...	...	3	...	3	...	...	55	13	13	...	13	13		13	13		...	...		14 0 0	19 0 0	Pits complete and stones to be erected.
Malambi	35	...	35	...	...	...	...	...	...	...	35	...	35	...	...	656	178	183	...	178	188		178	188		...	...		207 4 0	69 0 0	10 more pits to be dug and stones to be erected.
Nidta	23	...	23	...	...	...	...	...	...	...	23	...	23	...	...	167	38	38	...	38	38		38	38		...	...		37 12 0	25 0 0	Pits complete and stones to be erected.
Yadavanad and Gadinad ...	28	5	33	8	...	8	...	...	...	5	36	...	41	...	...	218	128	139	...	128	139		128	139		...	...		194 15 8	67 8 0	11 more pits to be dug and stones to be erected.
Anekadu including Bactonkote ...	24	...	24	1	...	1	...	...	...	...	25	...	25	...	...	235	26	88	...	26	88		26	88		...	...		86 5 4	60 0 0	62 Do do
Attur	18	...	18	...	...	...	...	...	...	...	18	...	18	...	...	300	51	85	...	51	85		51	85		...	...		90 5 4	47 14 0	34 Do do
Jainkal	5	1	6	...	...	...	...	...	...	1	5	...	6	...	...	187	88	98	...	88	98		88	98		...	...		115 0 0	43 2 0	10 Do do
Dubare	12	...	12	...	...	...	13	...	13	...	12	...	25	...	...	115	31	25	...	31	25		31	25		...	...		20 9 0	55 7 4	Pits complete. 16 stones to be made and 31 to be erected.
Devamachi and Mawukal ...	40	...	40	12	...	12	...	...	...	...	52	...	52	171	...	...	144	...	...	315	...		144	...		171	...		37 6 8	179 7 4	26 more pits to be dug and stones to be erected.
Arkeri	22	...	22	5	...	5	...	...	...	...	27	...	27	305	...	...	137	...	...	442	...		232	...		210	...		40 0 0	66 14 8	Pits complete and stones to be erected.
Hatgat	19	...	19	5	...	5	...	...	...	...	24	...	24	245	...	...	61	...	...	306	...		61	...		245	...		15 4 0	90 3 10	10 more pits to be dug and stones to be erected.
Nalkeri	22	...	22	10	...	10	...	...	...	...	32	...	32	204	...	...	49	...	...	253	...		98	...		155	...		8 2 8	123 9 4	Pits complete and stones to be erected.
Urti, Kerti, Chembu, Quinad and Keepally ...	Not known.																											Not known.	65 0 0	
Total.....	260	6	266	41	...	41	14	...	14	6	301	...	321	925	...	2,056	999	734	...	1,924	734	...	1,143	734	...	781	...	...	929 15 8	938 2 6	
Ghat forests	190	...	190	20	25	45	...	...	...	25	20	190	235	3,650	...	...	222	...	...	3,872	...	...	435	...	...	3,437	...	...	100 0 0	322 8 0	
Total.....	190	...	190	20	25	45	...	...	...	25	20	190	235	3,650	...	...	222	...	...	3,872	...	...	435	...	...	3,437	...	...	100 0 0	322 8 0	
Grand Total.....	450	6	456	61	25	86	14	...	14	31	321	190	556	4,575	...	2,056	1,221	734	...	5,796	734	...	1,578	734	...	4,218	...	...	1029 15 8	1260 10 6	

APPENDIX B.

FOREST DEPARTMENT, COORG.

Statement showing cases in which subordinates were punished during 1890—91.

How disposed of—	Permanent establishment.				Temporary establishment.					Grand Total.	Remarks.
	Rangers.	Foresters.	Guards.	Clerks.	Rangers.	Foresters.	Mutsaddies.	Guards.	Clerks.		
Prosecuted	...	..	..	...	...	...	...	...	..	...	
Dismissed from service	...	1	...	...	...	...	...	...	...	1	
Degraded	..	1	..	...	...	...	...	..	..	1	For 3 months from 1st November 1890.
Suspended	..	...		1	...	...	...	...	.	1	
Fined	..	5	25	3	...	2	...	...	...	35	
Total	...	7	25	4	...	2	...	...	..	38	

APPENDIX C.

Return of grazing in the State forests of Coorg during 1890—91.

Forest.	Area of the forest acres.	Grazing on payment.												Free grazing.									Remarks.
		At full rates.						At privileged rates.						By right.					During pleasure of Government.				
		Buffaloes.	Cows & bullocks	Goats & sheep.	Camels.	Other animals.	Fees received.	Buffaloes.	Cows & bullocks	Goats & sheep.	Camels.	Other animals.	Actuals. Fee received. Value @ full rates	Buffaloes.	Cows & bullocks	Goats & sheep.	Camels.	Other animals.	Value at full rates.	Buffaloes.	Cows & bullocks	Goats & sheep.	Camels.	Other animals.	Value of fees at full rates.	
Kattepura	585		45	.	.	.	6	...	...	...	...	...	...	...	...	...									
Mensabettu	276	.	..	..	.	.	...	...	...	...	...	...	...	...	...	...									
Alur	395	.	150	.	..	.	50	..	...	...	...	.	...	...	...	...									
Malambi	3,732		333			.	83	..	.	...	...	...	...	...	...	...									
Nidta .	2,088					.	...	...	...	...	...	...	..	...	...	...									
Yodavanad . ..	2,871	16	200	..	.		61	..	...	...	..	...	.	}	232										
Gadinad . ..	4,000	..	25	..	...	...	25	..	.	..	.	.	.	}											
Jainkal . ..	1,267	..	52		.	..	13	...	...	...	...	...	.	.	...										
Anekadu including Bactankote.	7,590	...	820	...	...	...	205	...	...	...	...	...	..	..	1,671										
Attur	5,154	..	254	...	..	.	64	...	...	...	...	...	..	..	628										
Dubare .	11,363		100				75	...	...	...	...	...	.	.	200										
Devamachi . ..	9,392	193	600				251	...	...	...	...	...	.		157										
Mavukal ..	8,281	45	646				183	...	...	...	...	...	.	.	12										
Arkeri . . .	18,262	49	24		.	..	49	...	...	...	...	...	.		2,305										
Hatgat	27,520	.			.	...	...	...	...	...	...	..	..	...	1,456										
Nalkeri	26,075		.	.	..	...	...	...	...	...	...	...	...	...	2,167										
Urti and Kerti	19,200	...	..	..	...	...	...	...	...	...	...	...	...	...	815										
Arkamale	2,500	..	..		.	...	...	...	...	...	.	...	...	...	...										
Keopalli	800	.	..	.			...	...	..	...	...	...	..	...	...										
Chembu and Quinad ...	6,400	.	...	...			...	...	...	...	...	...	...	...	...										
Total .	1,58,351	303	3249	...	...	...	1065	...	...	...	...	...	...	...	9,643	.		2411							

Appendix D.

FOREST DEPARTMENT, COORG.

Statement showing the progress made in, and expenditure incurred on forest settlements during 1890—91.

Division.	Name of civil district or territory.	Area already settled at commencement of the year.	Areas finally settled during the year.						Areas undergoing settlement.												Remarks.
			No. and date of Govt. order according final sanction to the settlement.	Name of forest settled.	Area in square miles.	Expenditure incurred during the year as areas finally settled		Entire cost per square miles of areas settled during the year.	At commencement of the year.		Taken in hand during the year.		Expenditure incured during the year on areas undergoing settlement.							
						In forest accounts.	In other accounts.		Name of forest.	Area in square miles	Name of forest.	Area in square miles	Expenditure up to 1889—90.			During 1890—91.			Total.			
													Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	
Coorg.									Mensabetta ...	...			197	0	10	...	...	...	197	0	10	Expenditure added during the year was on account of pay, &c., of establishment for March 1890.
									Allur ...	...			...	...	...	...	...	...	...	...	...	
									Malambi ...	6			327	5	2	...	...	...	327	5	2	
									Nidta ...	4												
									Yedavanad ...	4												
									Gadinad...	6			292	2	10	102	0	0	394	2	10	
									Jainkal ...	2												
									Anekadu ...	11												
									Attur	8			608	3	7	...	...	...	608	3	7	
									Bactonkote ...	1			95	0	10	11	6	3	106	13	1	
									Dubari	18			81	2	9	...	...	...	81	2	9	
									Devamachi ...	15			123	9	2	64	0	0	187	9	2	
									Mawukal ...	13			125	11	4	...	...	...	125	11	4	
									Arkori	29			128	11	5	...	...	...	128	11	5	
									Hatgat	43			135	11	4	...	...	...	135	11	4	
									Nalkeri	40			127	11	5	...	...	...	127	11	5	
									Urti and Kerti ...	30			141	12	2	180	0	0	321	12	2	
									Chombu and Quinad.	10			...	...	...	...	...	...	...	...	...	
									Kattepura ...	1			161	10	3	20	10	3	182	4	6	
									Arkamale ...	4			120	9	7	...	...	...	120	9	7	
									Kipalli	1			...	...	...	...	...	...	...	...	...	
											Total Rs...	...	2,666	12	8	378	0	6	3,044	13	2	

Appendix E.

Statement showing the cost of plantations from commencement to end of 1890—91.

Year when opened.	No.	Name of Plantations.	Cost up to 31st March 1890.	Receipts up to 31st March 1890.	During the year 1890—91.		Total area.	Total charges.	Total receipts.	Balance against plantations.
					Cost.	Receipts.				
		Regular Plantations.								
		Sandal.								
1872—73	1	Mensabetta (Gangwara) ...	12,950	94	772	...	148	13,722	94	13,628
1880—81	2	Kargodu (Malambi)	1,899	...	165	...	51	2,064	...	2,064
1882—83	3	Banawara (Nidta) ...	823	...	77	...	16	900	...	900
1878—79	4	Horekeri	6,396	15	578	...	125	6,974	15	6,959
1880—81	5	Hurlikal (Anekadu) ...	1,254	15	347	...	16	1,601	15	1,586
1882—83	6	Attur Bakka	1,450	16	186	...	...	1,636	16	1,620
1883—84	7	Yarekolli (Anekadu) ...	27	...	...	...	2	27	...	27
1881—82	8	Fraserpet Gandadagundi ...	1,641	58	160	...	29	1,801	58	1,743
1877—79	9	Do Holageri	997	51	...	...	5	997	51	946
1880—81	10	Dubari (Bungalow)	1,002	...	...	...	2	1,002	...	1,002
1880—81	11	Maldare (South Dubari) ...	2,446	...	...	...	7	2,446	...	2,446
1884—85	12	Bambookad (Tittimatti) ...	1,728	...	145	...	25	1,873	...	1,873
1880—81	13	Balumani (Mawukal)	2,107	...	...	...	22	2,107	...	2,107
1880—81	14	Karmad (Hatgat)	2,381	...	...	...	15	2,381	...	2,381
1880—81	15	Nagarahole (Nalkeri)	2,443	...	...	...	12	2,443	...	2,443
		Total.....	39,544	249	2,430	...	475	41,974	249	41,725
		Teak.								
1872—73	1	Karopura	1,981	...	...	...	14	1,981	...	1,981
	2	Horekeri	112	19	15	...	11	127	19	108
1883—84	3	Hurlikal (Attur)	1,548	...	...	...	19	1,548	...	1,548
1879—80	4	Anekadu	4,246	...	33	...	66	4,279	...	4,279
		Do in the open								
1879—80	5	Hanakodu (Dubari) including Chillikeri	2,247	...	16	...	28	2,263	...	2,263
1881—82	6	Maldare	1,106	...	12	...	18	1,118	...	1,118
1867—68	7	Tittimatti	1,325	...	38	...	24	1,363	...	1,363
1867—68	8	Karmad	24,646	...	57	...	197	24,703	...	24,703
1872—73	9	Ammale (Nalkeri)	2,348	...	...	...	17	2,348	...	2,348
1868—69	10	Kutompole	45,017	1,208	2,814	387	526	47,831	1,595	46,236
		Total.....	84,576	1,227	2,985	387	920	87,561	1,614	85,947
		Fuel Reserves.								
1879—80	1	Merkara	11,984	689	578	87	152	12,562	776	11,786
		Total.....	11,984	689	578	87	152	12,562	776	11,786
		Cultural Operations.								
		Nalkeri strip teak sowing ...	...	...	...	...	10	...	...	...
1887—88	1	Dubari teak sowing	867	...	223	...	30	1,090	...	1,090
1887—88	2	Maldari ,, ...	169	...	...	...	...	169	...	169
1888—89	3	Mawukal ,, ...	158	...	18	...	...	176	...	176
1890—91	4	Nidta sandal sowing	...	...	82	...	25	82	...	82
		Total.....	1,194	...	323	...	65	1,517	...	1,517
		Grand Total.....	1,37,298	2,165	6,316	474	1,612	1,43,614	2,639	1,40,975
						Abstract.				
		Sandal	39,544	249	2,430	...	475	41,974	249	41,725
		Teak	84,576	1,227	2,985	387	920	87,561	1,614	85,947
		Fuel	11,984	689	578	87	152	12,562	776	11,786
		Cultural operations	1,194	...	323	...	65	1,517	...	1,517
		Total.....	1,37,298	2,165	6,316	474	1,612	1,43,614	2,639	1,40,975

Form No. 49.

FOREST DEPARTMENT, COORG.

Area of reserved forests, protected forests, unclassed State forests and waste lands for 1890—91.

Division.	Range.	Civil district or territory.	Name of forest.	Area on 1st April 1889. Acres.	Area on 1st April 1889. Equivalent in square miles.	Added during the year. Acres.	Excluded or transferred to other heads. Acres.	Area on 31st March 1891. Acres.	Area on 31st March 1891. Equivalent in square miles.	No. and date of notification of addition or transfer.	Remarks.
			RESERVED FORESTS.							Chief Commissioner's No. 50 dated 8th December 1890.	
Coorg.	North Coorg.		Kattepura	...	...	585	...	585	1		
			Mensabetta	276	...	...	...	276	...		
			Alur	395	1	...	...	395	1		
			Malambi	3,732	6	...	...	3,732	6		
			Nidta	2,499	4	189	...	2,688	4		Difference between the estimated area and the surveyed area of Bageri block. Vide No. 273, dated 21st May 1889 from the Deputy Superintendent, Survey.
			Yedavanad	2,871	4	...	...	2,871	4		
			Gadinad	3,764	6	236	...	4,000	6		Do between the estimated and the approximate area of Chikhudugoor Block.
			Jainkal	1,267	2	...	...	1,267	2		
			Anekadu including Bactancote.	7,497	12	93	...	7,590	12		Do do and surveyed area of Bactancote Block.
			Attur	5,260	8	...	106	5,154	8		Do do do of Bendebetta block.
			Dubari	11,363	18	...	...	11,363	18		
	South Coorg.		Devamachi	9,376	15	16	...	9,392	15		On re-measurement of certain blocks.
			Mawukal	8,281	13	...	...	8,281	13		
			Arkori	18,262	29	...	...	18,262	29		
			Hatgat	27,520	43	...	...	27,520	43		
			Nalkori	26,075	40	...	...	26,075	40		
	Kutompole.		Urti and Kerti ...	19,200	30	...	...	19,200	30		Area estimated.
			Arkomale	...	...	2,500	...	2,500	4	Do	Do
			Keepalli	...	...	800	...	800	1	Do	Do
	Ghat.		Chomboo and Quinad ...	6,400	10	...	...	6,400	10		Do
			Total.....	154,038	241	4,419	106	1,58,351	247		
			PROTECTED FORESTS.								
	North Coorg		Kattepura	585	1	...	585	...	...		Transferred to reserved forests.
	Kutompole.		Arkomale	2,500	4	...	2,500	...	...		Do
			Keepalli	800	1	...	800	...	...		Do
	Ghat.		Ghat forests	1,94,460	304	...	...	1,94,460	304		
			Urudves, Paisaries and *Devarakadus* ...	1,95,516	305	...	*282	1,95,234	305		*Excluded owing to waste land sales.
			Total.....	3,93,861	615	...	4,167	3,89,694	609		
			Grand Total.....	5,47,899	856	4,419	4,273	5,48,045	856		

Form No. 50.

Prosecutions for breaches of Forest Rules during 1890—91.

Forest Division and Civil District.	Cases pending from 1889—91.	New cases of the year. Injury to forest by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.	Total cases.	Disposed of during the year. Convictions. Cases.	Convictions. Persons.	Acquittals. Cases.	Acquittals. Persons.	Total. Cases.	Total. Persons.	Cases pending at close of year.
North Coorg	...	...	4	...	1	5	5	4	5	1	1	5	6	
South Coorg	...	...	...	...	...	...	...	...	...	...	...	...	...	
Yedenalknad	...	...	1	...	...	1	1	1	2	...	...	1	2	
Total.....	...	...	5	...	1	6	6	5	7	1	1	6	8	
					COMPOUNDED BY FOREST OFFICER.									
North Coorg	...	...	2	...	...	2	2	2	2	...	...	2	2	
South Coorg	...	...	2	...	3	5	5	5	5	...	...	5	5	
Total.....	...	...	4	...	3	7	7	7	7	...	...	7	7	
Grand Total.....	...	...	9	...	4	13	13	12	14	1	1	13	15	

Form No. 51.

Area of forest tracts protected from fire during the dry season of 1891 to accompany the report for 1890—91.

Division.	Name of Forest.	Year in which protection commenced.	Area actually protected up to 15th June 1890.	During dry season of 1891.			Cost during the season.	Remarks.
				Area attempted to be protected.	Failures.	Area actually protected.		
Coorg.	Kattepura	1889	585	585	26	559	28	
	Menasabetta	1877	276	276	...	276	203	
	Alur	1889	395	395	...	395	...	
	Malambi	1878	3,732	3,732	...	3,732	116	
	Nidta	1878	2,499	2,688	...	2,688	12	
	Yedavanad and Gadinad	1878	6,635	6,871	1,320	5,551	223	
	Jainkal and Bikki Hari	1878	1,267	1,562	...	1,562	182	
	Anekadu including Bactonkote ...	1878	7,460	7,590	770	6,820	194	
	Attur	1876	5,260	5,154	83	5,071	164	
	Dubari	1877	11,063	11,363	620	10,743	455	
	Devamachi and Mawukal	1878	16,427	17,673	522	17,151	624	
	Tittimatti sandal plantation	1883	25	25	...	25	12	
	Ankeri	1878	18,262	18,262	12,801	5,461	353	
	Hatgat	1878	26,600	27,520	6,514	21,006	724	
	Nalkeri	1878	24,425	26,075	5,824	20,251	618	
	Kutompole teak plantation	1881	468	526	...	526	146	
	Merkara fuel do	1883	188	318	4	314	300	100 erroneously charged to this head instead of VIII a demarcation.
	Fraserpet sandal plantation	1881	34	34	...	34	92	
	Total.....	...	1,25,601	1,30,649	28,484	1,02,165	4,536	

Form No. 52.

FOREST DEPARTMENT, COORG.

Area of Plantations, 1890—91.

Division.	Name of Plantation.	Area in acres. On 1st April 1890.	Added during the year.	Excluded during the year.	Area on 31st March 1891.	Receipts of the year.	Charges of the year.	Remarks.
Coorg.	**Regular Plantations.**							
	Mensabetta (Gangawara) Sandal..	133	15	...	148	...	663	
	Kargodu (Malambi) ,, ...	43	8	...	51	...	165	
	Banavara (Nidta) ,, ...	16	...	...	16	...	77	
	Herikere ,, ...	100	25	...	125	...	578	
	Hurlikal (Anekadu) ,, ...	16	...	...	16	...	347	
	Attoor-Bakka ,, ...	...	20	20	...	...	186	
	Yarekolly (Anekadu) ,, ...	2	...	...	2	...	...	
	Fraserpet (Gandadagundi),, ...	29	...	...	29	...	51	
	Do Holagori ,, ...	5	...	...	5	...	...	
	Dubari (Bungalow) ,, ...	2	...	...	2	...	...	
	Maldare (South Dubari) ,, ...	7	...	...	7	...	...	
	Bambukadu (Tittimatti) ,, ...	25	...	...	25	...	145	
	Balumani (Mawukal) ,, ...	22	...	...	22	...	...	
	Karmad (Hatgat) ,, ...	15	...	...	15	...	...	
	Nagarahole (Nalkeri) ,, ...	12	..	...	12	...	...	
	Value of 15 reels of barbed wire..	...	...	...	...	...	282	
	Total.....	427	68	20	475	...	2,494	
	Karopura Teak ...	14	...	...	14	...	...	
	Herikeri ,, ...	10	1	...	11	...	15	
	Hurlikal (Attoor) ,, ...	19	...	...	19	...	...	
	Anekadu ,, ...	66	...	...	66	...	33	
	Dubari ,, ...	28	...	...	28	...	16	
	Maldare ,, ...	18	...	...	18	...	12	
	Tittimatti ,, ...	24	...	...	24	...	38	
	Karmad ,, ...	197	...	...	197	...	57	
	Ammale (Nalkeri) ,, ...	17	...	...	17	...	...	
	Kutompolle ,, ...	493	48	15	526	387	2,814	
	Total.....	886	49	15	920	387	2,985	
	Fuel Reserves.							
	Morkara Fuel ...	138	14	...	152	87	560	
	Total.....	138	14	...	152	87	560	
	Cultural Operations.							
	Nalkeri strip teak planting ...	10	...	...	10	...	...	
	Dubari teak sowing	...	30	...	30	...	223	
	Mawukal do ...	...	...	...	...	...	18	
	Nidta sandal sowing	...	25	...	25	...	82	
	Total.....	10	55	...	65	...	323	
	Grand Total.....	1,461	186	35	1,612	474	6,362	
	Regular Plantations.			**Abstract.**				
	Sandal	427	68	20	475	...	2,494	
	Teak	886	49	15	920	387	2,985	
	Fuel	138	14	...	152	87	560	
	Cultural operations	10	55	...	65	...	323	
	Total.....	1,461	186	35	1,612	474	6,362	

Form No. 54.

FOREST DEPARTMENT, COORG.

Out-turn of timber and firewood during the year 1890—91.

Division.	Description of materials.	Out-turn in cubic feet.							Removed by—				Remarks.
		Regular fellings.	Selection fellings.	Coppice fellings.	Under waste lands.	Improvement fellings.	Thinnings.	Unclassed fellings.	Total.	Government agency.	Purchasers.	Free grants.	Right holders.	
						RESERVED FORESTS.								
Coorg.	Teak 57 logs ...	...	1,259	...	...	...	...	...	1,259	1,259	...	...	...	
	Honne 132 ,, ...	...	3,109	...	...	...	...	...	3,109	3,109	...	...	...	
	Matty 32 ,, ...	...	684	...	...	...	...	...	684	684	...	...	...	
	Biti 4 ,, ...	...	103	...	...	...	...	...	103	103	...	...	...	
	Nandy 41 ,, ...	...	980	...	...	...	...	...	980	980	...	...	...	
	Otherwood 427 ,, ...	...	196	...	...	...	...	14,718	14,914	196	14,718	...	...	
	Miscellaneous poles, 13,277	...	...	...	...	...	...	59,746	59,746	...	59,746	...	...	
	Firewood cart loads, 2,162	...	...	8,800	...	...	...	45,250	54,050	...	54,050	...	...	
	Total.....	...	6,331	8,800	...	...	...	1,19,714	1,34,845	6,331	1,28,514	...	...	
						PROTECTED FORESTS.								
	Teak 58 trees...	...	...	...	870	...	...	...	870	...	870	...	...	
	Honne 761 ,, ...	...	...	...	11,130	...	...	950	12,080	...	11,630	450	...	
	Biti 464 ,, ...	...	...	...	6,825	...	...	450	7,275	...	7,125	150	...	
	Matty 2,037 ,, ...	...	...	...	30,165	...	...	1,300	31,465	...	30,665	800	...	
	Nandy 1,477 ,, ...	...	...	...	21,720	...	...	1,450	23,170	...	22,470	700	...	
	Otherwood 1,357 ,, ...	...	...	...	19,965	...	...	1,300	21,265	...	20,315	950	...	
	Do poles 47 ...	...	...	...	...	...	...	211	211	...	121	90	...	
	Firewood cart loads, 3,178	...	...	...	...	...	...	79,450	79,450	...	79,450	...	...	
	Sandal trees, 6022=142 tons	...	...	...	...	...	...	5,783	5,783	5,783	...	...	...	
	Total.....	...	...	...	90,675	...	...	90,894	1,81,569	5,783	1,72,646	3,140	...	
	Grand Total.....	...	6,331	8,800	90,675	...	...	2,10,608	3,16,414	12,114	3,01,160	3,140	...	

Form No. 55.

Out-turn of minor forest produce during the year 1890—91.

Division.	Description of produce.	Produce removed or utilized.												Remarks.
		By Government agency.		By purchasers on License.		By purchasers under Waste Land Rules.		By free grants.		By right holders.		Total.		
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
Coorg.	Bambus	11,880	299	470063	4,337	(a) 59,650	596	(b) 4,436	40	..	...	5,46,029	5,272	a & b. Bambus removed from waste lands and by free grants refer to protected forests and the remainder to the reserved forests.
	Reeds	...	...	5,250	6	...	...	...	...	...	...	5,250	6	Reserved forests.
	Recoveries on account of cattle pounds ...	...	244	...	...	...	...	...	...	...	...	...	244	
	License granted to cut and remove grass from Merkara and Devamachi ...	...	...	...	101	...	...	...	...	...	...	...	101	
	Grazing dues on 303 buffaloes, and 3,249 bullocks	...	...	3,552	1,065	...	...	...	...	...	...	3,552	1,065	
	Cattle admitted by right.	...	...	...	...	...	...	...	...	9643	2411	9,643	2,411	
	Minor forest produce ...	...	...	...	883	...	...	...	...	...	...	...	883	Reserved and protected forests.
	Cardamoms	...	...	...	14,847	...	...	...	...	...	...	...	14,847	Protected forests.
	Total.....	11,880	543	478863	21,239	59,650	596	4,436	40	9643	2411	5,64,474	24,829	

Form No. 56.

FOREST DEPARTMENT, COORG.

Account of timber and other produce cut or collected by Government agency and brought to sale-depots, or sold locally during the year 1890—91.

Particulars.	No. or quantity.	Cubic feet.	Tons.	Total of each head. No. or quantity.	Total of each head. Cubic feet.	Total of each head. Tons.	Particulars.	No. or quantity.	Cubic feet.	Tons.	Total of each head. No. or quantity.	Total of each head. Cubic feet.	Total of each head. Tons.
Balance at commencement of the year.							**Removed by purchasers from depots.**						
Teak logs	752	21,164					Teak logs	867	23,431				
Honne logs	495	12,411					Honne logs	632	15,185				
Matti logs	192	5,013					Matti logs	238	6,139				
Biti logs	90	2,540					Biti logs	102	2,839				
Nandy logs	94	2,414					Nandy logs	130	3,106				
Other wood logs ...	43	941					Other wood logs	27	777				
Scantlings	41,570	12,887					Scantlings	28,475	4,394				
				43,236	57,870						30,471	55,671	
Teak poles	51	...					Teak poles	51	...		51		
Other wood poles ...	243	...											
				294			Bambus	11,880	...		11,880		
Bambus	2,652	...											
				2,652			**Sandalwood.**						
Sandal wood.							Good wood	...	...	89			
							Inferior wood	...	...	25			
Good wood	...	...	9	—							...	...	114
Inferior wood ...	...	...	...				**Sold locally.**						
				...	...	9							
Received from the forests in depots.							Teak logs	1	14				
							Honne logs	20	691				
Teak logs	508	13,876					Matti logs	2	38				
Honne logs	639	14,691					Nandy logs	14	289				
Matti logs	146	3,211					Other wood logs	4	97				
Biti	55	1,458									41	1,129	
Nandy logs	157	3,573					**Lost or written off as useless.**						
Other wood logs ...	25	781											
				1,530	37,590		**Nil.**						
Teak poles	...	...											
Other wood poles ...	...	...					**Balance at the close of the year.**						
				...			Teak logs	393	11,608				
Bambus	11,880	...					Honne logs	502	11,917				
				11,880			Matti logs	100	2,085				
Sandalwood.							Biti logs	43	1,159				
							Nandy logs	121	2,881				
Good wood	...	...	109				Other wood logs	41	945				
Inferior wood ...	...	...	33				Scantlings	13,095	8,494				
				...	...	142					14,295	39,089	
Received from the forests and sold locally.							Other wood poles ...	243	...		243	...	
							Bambus	2,652	...		2,652	...	
Teak logs	1	14											
Honne logs	20	691					**Sandalwood.**						
Matti logs	2	38											
Nandy logs	14	289					Good wood	...	...	29			
Other wood logs ...	4	97					Inferior wood	...	...	8			
				41	1,129						..	...	37
Grand Total.....	...	...		59,633	96,089	151	Grand Total.....	...	...	...	59,633	96,089	151

Form No. 57.

Abstract shewing the value of timber and other produce at sale-depots for the year 1890—91.

Description of timber and other produce.	On hand at commencement of the year. No. of logs.	C. ft.	Value.	On hand at close of the year. No. of logs.	C. ft.	Value.	Difference in value. In favor of the year.	Against the year.	Remarks.
			Rs.			Rs.			
Teak logs	752	21,164	15,873	393	11,608	8,706			At annas 12 per c. ft.
Scantlings	41,570	12,887	9,665	13,095	8,494	6,370			Do
Honne logs	495	12,411	5,196	502	11,917	5,271			At Rs. 10-8-0 per log.
Biti	90	2,540	720	43	1,159	344			At Rs. 8-0-0 per do.
Nandy	94	2,414	752	121	2,881	968			Do
Matti	192	5,013	1,536	100	2,085	800			Do
Other wood	43	941	344	41	945	328			Do
Teak poles	51	...	51	...	...	...			
Other wood poles ...	243	...	243	243	...	243			At Re. 1-0-0 per pole.
Bambus	2,652	...	26	2,652	...	26			
Total.....	46,182	57,370	34,406	17,190	39,089	23,056	...	11,350	
Sandalwood.									
Good wood	tons 9	...	3,132	tons 29	...	13,050			At Rs. 450 per ton.
Inferior wood ...	...	...	...	,, 8	...	320			At Rs. 40 per ton.
Total.....	9	...	3,132	37	...	13,370	10,238		
Grand Total.....	46,191	57,370	37,538	17,227	39,089	36,426	...	1,112	

Form No. 58.

FOREST DEPARTMENT, COORG.

Summary of revenue of the Coorg Division during 1890—91.

Budget heads.	Total.		
Receipts.			
I.—Timber and other produce removed from the forests by Government agency—			
a. Timber	37,459	5	5
b. Firewood and charcoal	...	...	...
c. Bambus	298	12	0
d. Sandal-wood	52,883	2	5
e. Grass and other minor produce	...	...	...
II.—Timber and other produce removed from the forests by consumers or purchasers—			
a. Timber	21,073	5	1
b. Firewood and charcoal	1,848	4	0
c. Bambus	4,343	5	10
d. Grazing and fodder grass	1,443	4	0
e. Other minor produce	883	2	0
e. Cardamom	14,847	3	0
III.—Drift and waif wood, and confiscated forest produce			
IV.—Revenue from forests not managed by Government—			
a. Duty on foreign timber and other forest produce	...	...	...
b. Revenue from shared and private forests	...	...	...
V.—Miscellaneous—			
a. Fines and forfeitures	31	0	0
b. Refunds	23	15	9
c. Other sources	426	7	2
Total Receipts	1,35,561	2	8

Form No. 58.

Summary of expenditure of the Coorg Division during 1890—91.

Budget heads.	Total.		
A.—Conservancy and Works.			
I.—Timber and other produce removed from the forests by Government agency—			
a. Timber	11,099	11	5
b. Firewood and charcoal	15	0	0
c. Bambus	166	1	4
d. Sandal-wood	5,611	3	7
e. Grass and other minor produce	139	2	8
II.—Timber and other produce removed from the forests by consumers or purchasers	478	3	9
III.—Drift and waif wood and confiscated forest produce	...	...	...
IV.—Revenue from forests not managed by government—			
a. Duty on foreign timber and other forest produce	...	...	...
b. Revenue from shared and private forests	...	...	...
V.—Rent of leased forests and payments to shareholders in forests managed by government	...	...	...
VI.—Live-stock, stores, tools and plant—			
a. Purchase of cattle	...	...	...
b. Feed and keep of cattle	91	9	8
c. Purchase of stores, tools and plant	655	9	8
VII.—Communications and buildings—			
a. Roads and bridges	581	9	0
b. Buildings	1,062	7	7
c. Other works	...	...	...
VIII.—Demarcation, improvement and extension of forests—			
a. Demarcation	2,668	10	8
b. Compensation for land and rights	150	0	0
c. Surveys and working plans	2,437	12	10
d. Sowing and planting	6,361	13	2
e. Protection from fire	4,448	1	4
f. Other works	344	7	4
IX.—Miscellaneous—			
a. Refunds	72	0	0
b. Law charges	45	15	3
c. Other charges	245	12	9
Total A. Conservancy and Works	36,675	4	0
B—Establishment.			
I.—Salaries—			
a. Conservators	...	...	...
b. Superior officers	9,600	0	0
c. Subordinate forest and depot establishments	12,263	3	8
d. Office establishments	3,270	1	6
e. Deputation and special allowances	...	...	...
II.—Travelling allowances—			
a. Conservators	...	...	...
b. Superior officers	1,651	8	0
c. Subordinate forest and depot establishments	1,122	8	0
d. Office establishments	137	14	1
III.—Contingencies—			
a. Stationery	8	14	0
b. Carriage of tents and records	467	1	4
c. Rents, rates and taxes	13	0	0
d. Pay of police guards	...	...	...
e. Official postage	328	4	0
f. Sundries	280	4	7
Total B.—Establishment	29,142	11	2
Grand Total of Expenditure	65,817	15	2

J. C. BOSE
Assistant Comptroller General, (Forests).

Form No. 59.

FOREST DEPARTMENT, COORG.

Account current for the year 1890—91.

Dr. *Cr.*

To cash balance				77	2	8	By expenditure as per annual summary, form No. 58				65,817	15	2
,, VIII Assessed taxes—Income tax deductions from salaries				319	12	9	,, Forest cash remittances, local—Remittances to Treasuries	1,06,983	6	9			
,, Revenue as per annual summary Form No. 58				1,35,501	2	8					1,06,983	6	9
							,, Advances recoverable				63,944	9	3
,, Forest cash remittances, local—Forest cheques drawn	63,552	4	3				,, Suspense				0	2	6
				63,552	4	3	,, Account current (other Governments)—Remittances to the Government of C. Provinces	1	4	5			
,, Advances recoverable				64,507	0	5	Do do of Madras.	25,472	11	10			
,, Suspense											25,474	0	3
,, Account current (other Governments.) Remittances from Government of C. Provinces							,, Inter departmental transfers—P. W. Department (ordinary)	3,080	1	9			
Civil Department—Jail	128	10	0				,, Civil Department Miscellaneous	25	0	0			
Mathematical Instrument Department	1,176	13	0								3,105	1	9
Survey of India	6	4	0										
				1,311	11	0	,, Cash balance				3,14	7	
Total Rs				2,65,329	1	9	Total Rs				2,65,329	1	9

J. C. BOSE

Assistant Comptroller General, (Forests).

Form No. 60.

Revenue received and outstandings on account of revenue during 1890—91.

Division.	Particulars.	Outstandings at commencement of the year.			Value of sales and other revenue during the year.			Total.			Actual amount realised during the year.			Written off.			Cancelled sales.			Total.			Balance due to the department at the end of the year.			Remarks.
Coorg.	I. *a.* Timber	8,478	6	1	37,794	8	1	46,272	14	2	37,459	5	5	865	14	3	*3,363	10	0	41,688	13	8	4,584	0	6	
	b. Firewood	1	0	0	...	...	...	1	0	0	...	...	...	1	0	0	...	...	...	1	0	0	...	...	...	
	c. Bambus	11	12	0	298	12	0	310	8	0	298	12	0	11	12	0	...	...	...	310	8	0	...	...	...	
	d. Sandalwood	6,873	0	0	46,032	12	10	52,905	12	10	52,888	2	5	22	10	5	...	...	...	52,905	12	10	...	...	...	
	II. *a.* Timber	4,921	4	6	18,836	12	1	23,558	0	7	21,073	5	1	301	14	0	...	...	...	21,375	3	1	2,182	13	6	
	b. Firewood	48	2	0	1,845	14	0	1,894	0	0	1.848	4	0	45	8	0	...	...	...	1,893	12	0	0	4	0	
	c. Bambus	452	1	0	4,543	1	10	4,995	2	10	4,343	5	10	267	9	0	...	...	...	4,610	14	10	384	4	0	
	d. Grazing and fodder grass	40	9	4	1,410	0	0	1,450	9	4	1,443	4	0	5	5	4	...	...	...	1,448	9	4	2	0	0	
	e. Other minor produce	784	13	8	545	6	0	1,330	3	8	883	2	0	76	12	0	...	...	...	959	14	0	370	5	8	
	Cardamoms	21,548	2	1	25,918	5	1	47,466	7	2	14,847	3	0	...	...	...	...	...	...	14,847	3	0	32,619	4	2	
	III. Confiscated wood	2	8	0	...	...	...	2	8	0	...	...	...	2	8	0	...	...	...	2	8	0	...	...	...	
	V. *a.* Fines & forfeitures.	...	...	...	31	0	0	31	0	0	31	0	0	...	...	...	...	...	...	31	0	0	...	...	...	
	b. Refunds	...	...	...	23	15	9	23	15	9	23	15	9	...	...	...	...	...	...	23	15	9	...	...	...	
	c. Other sources	+3,098	1	0	368	7	2	3,466	8	2	426	7	2	52	2	0	...	...	...	478	9	2	2,987	15	0	
	Total Rs	45,759	11	8	1,37,948	14	10	1,83,708	10	6	1,35,561	2	8	‡1,652	15	0	3,363	10	0	1,40,577	11	8	43,130	14	10	

*Cancelled owing to timber not being paid for within prescribed period. Ten per cent forfeited to Government.

†Rs. 46 and 3,767—14—6 were transferred from Head V.c to d and IIa respectively on account of waste land sales, &c.

‡Written off, vide Secretary's letter No. 632—3190, dated 9th May 1890.

J. McKEE

Dy. Conservator of Forests, Coorg.

Form No. 61.

Outstandings and liabilities on account of contractors and disbursers for 1890—91.

Division.	Department debtor.							Department creditor.							Balance due.				Remarks.
	At commencement of year.			Recoveries in cash and value of supplies and work done during the year.			At close of year.			At commencement of year.			Payments made during year.			At close of year.			To department, (outstandings.)			By department, (liabilities.)		
Coorg	12	9	2	64,507	0	5	64,519	9	7	2,686	5	0	63,944	9	3	66,630	14	3	2,111	4	8	...	...	...	
Total Rs	12	9	2	64,507	0	5	64,519	9	7	2,686	5	0	63,944	9	3	66,630	14	3	2,111	4	8	...	...	...	

J. C. BOSE

Assistant Comptroller General, (Forests).

Form No. 62.

Financial results of the year 1890—91.

Division.	Timber and other produce removed from the forests by Government agency.		Other revenue.		Formation, protection & improvement of forests.	Total.		Remarks.
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.	
Coorg	90,641	27,403	44,920	6,028	32,387	1,35,561	65,818	

COORG DY. CONSERVATOR'S OFFICE.
MERKARA, *26th June* 1891.

J. McKEE

Deputy Conservator of Forests, Coorg.

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